

5<sup>th</sup> Grade

NTI Day 31

Name:

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School:

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# Kentucky: The Bluegrass State

By National Geographic Kids, adapted by Newsela staff on 05.17.17

Word Count **807**

Level **MAX**



Kentucky has different landscapes. It has mountains, forests, swamps and waterfalls — like this one! Photo from: Pixabay.

People first came to the land now called Kentucky at least 14,000 years ago, possibly following mammoths and other large game that migrated here. Thousands of years later, Native American tribes lived on the land. These tribes included the Cherokee, Shawnee, Chickasaw and Yuchi.

It wasn't until 1774 that the first permanent white settlement was founded. Pioneers James Harrod and Daniel Boone founded other settlements in the following years.

For a while the eastern section of present-day Kentucky was considered part of Virginia. In 1792 it was declared its own state. The western part of Kentucky was later added in 1818 after being purchased from the Chickasaw Native American tribe.

When the Civil War broke out in 1861, Kentucky was officially neutral. Yet 140,000 of its citizens went to fight in the war.

## **Why Is It Called That?**

Most experts think that the name Kentucky comes from a Native American language, but they don't agree on which one. It may have come from the Wyandot name for the area, Kah-ten-tah-

teh. This can be roughly translated as "Land of Tomorrow." It's also possible that it came from the Shawnee name for the area, Kain-tuck-ee, which means "At the Head of the River." Or, it may have been derived from the Iroquoian or Mohawk word Kentucke meaning "among the meadows."

## Geography And Landforms

Kentucky is bordered by Indiana and Ohio in the north, where the Ohio River creates a wiggly boundary. It has West Virginia (separated from Kentucky by the Big Sandy River) and Virginia to the east, Tennessee to the south, and Missouri and Illinois to the west.

Kentucky contains six different geographical regions.

Farthest east is the Mountain region, a part of the Appalachian Mountain chain. Forests, high ridges and narrow, V-shaped valleys are here, plus the state's highest point, Big Black Mountain. This is also a land of coal fields — 10,500 square miles of coal are under this area, known as the Eastern Kentucky Coal Field.

Go west to the horseshoe-shaped Knobs region, where erosion has created hundreds of knob-shaped hills called monadnocks. Part of Daniel Boone National Forest is here.

In the middle of the Knobs is the Bluegrass region. It is named for the bluish-green grass that grows there. This region's hills, sinkholes, caves and springs were all created when the local limestone weathered, or broke down.

The Pennyroyal region (also spelled Pennyrile) is named after a type of mint plant that grows there. Spreading west across the center of the state, this area is rocky with trees, lakes and lots of caves. One of these caverns is Mammoth Cave, the world's longest. It stretches over 350 miles!

Surrounded by the Pennyroyal is the Western Coal Fields region, a hilly area overlying 4,680 square miles of coal. John James Audubon State Park, named after the famous artist and naturalist, is in this region.

The Jackson Purchase in the far west was added to Kentucky in 1818. This lowland is filled with ponds, lakes and swamps.

## Wildlife

Black bears, bobcats, red foxes, minks and river otters are common Kentucky mammals. Gaze at the sky, and you might see a peregrine falcon, bald eagle, mountain bluebird, Kentucky warbler or northern cardinal (the state bird). Check the ground and trees for reptiles like the six-lined racerunner, broadhead skink or Eastern corn snake. Amphibians such as the Kentucky spring salamander or the Jefferson salamander can be found near water.

The tulip poplar (the state tree) is native to the eastern United States, as is the Kentucky coffeetree. Other native trees include red maple, sassafras, northern red oak and bald cypress.



Look for colorful native wildflowers such as wild columbine, purple coneflower, dwarf iris and the endangered Kentucky lady's slipper, a type of orchid.

## Natural Resources

With almost half the state covered in forests, it's not surprising that Kentucky is one of the country's top three producers of hardwood. It's also the third-largest coal producer in the United States, thanks to its vast natural coal fields. Limestone is another top resource.

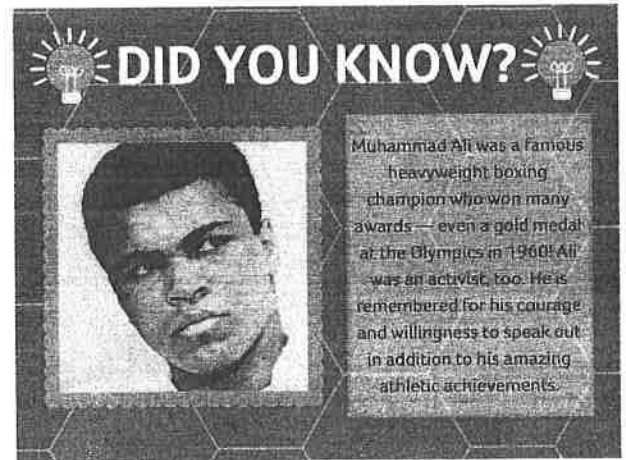
## Fun Stuff

Lots of famous people come from Kentucky, including President Abraham Lincoln. Mildred and Patty Hill, who wrote the tune to "Happy Birthday to You," came from the state. So did the famous boxer Muhammad Ali.

In Kentucky you can visit the Louisville Slugger museum and factory, where the first of its now-famous baseball bats were manufactured in the 1880s. You can't miss the place: Outside is a 120-foot-tall steel bat!

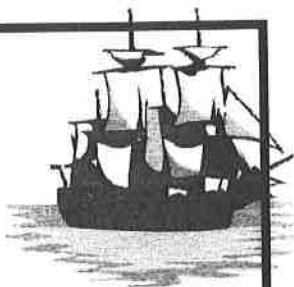
Fort Knox is home to the United States Bullion Depository. This underground vault contains one of the world's largest gold reserves—estimated to be about 260 billion dollars' worth!

Eastern Kentucky is home to so many country music stars that a stretch of highway was renamed the "Country Music Highway."



## Quiz

- 1 Why does the author include the section "Geography And Landforms"?
- (A) to explain how Kentucky's geography has contributed to the growth of its industry
  - (B) to argue that Kentucky's geography is its most important identifying characteristic
  - (C) to introduce readers to the diverse natural features of Kentucky's six regions
  - (D) to describe why Kentucky is considered to have the most unique land features in the world
- 2 Which paragraph in the section "Fun Stuff" supports the idea that Kentucky has been home to several important historical figures?
- (A) With almost half the state covered in forests, it's not surprising that Kentucky is one of the country's top three producers of hardwood. It's also the third-largest coal producer in the United States, thanks to its vast natural coal fields. Limestone is another top resource.
  - (B) Lots of famous people come from Kentucky, including President Abraham Lincoln. Mildred and Patty Hill, who wrote the tune to "Happy Birthday to You," came from the state. So did the famous boxer Muhammad Ali.
  - (C) In Kentucky you can visit the Louisville Slugger museum and factory, where the first of its now-famous baseball bats were manufactured in the 1880s. You can't miss the place: Outside is a 120-foot-tall steel bat!
  - (D) Fort Knox is home to the United States Bullion Depository. This underground vault contains one of the world's largest gold reserves—estimated to be about 260 billion dollars' worth!
- 3 Which section from the article highlights a disagreement some people have about a piece of Kentucky's history?
- (A) Introduction [paragraphs 1-4]
  - (B) "Why Is It Called That?"
  - (C) "Wildlife"
  - (D) "Natural Resources"
- 4 Read the introduction of the article [paragraphs 1-4]. What purpose does the introduction serve in developing the main idea?
- (A) It provides examples of how Native Americans and white settlers lived together.
  - (B) It describes in detail the struggles faced by early settlers to Kentucky.
  - (C) It details the challenges that Kentucky's settlers faced during the Civil War.
  - (D) It gives an overview of all the different people who have settled in Kentucky.



# Navigate

1. Look up the word “navigate” in the dictionary. Write its definition(s) on the line.

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2. Which of the following are examples of **navigating**? Circle the letter of all that apply.

- A. A woman reading a map and giving directions to her husband, who is driving
- B. A sailor who stays in sight of land while traveling by sea, so he knows where he is.
- C. A sailor using the location of particular stars to orient the ship in a particular direction.
- D. A boy scout, using a compass to find his way through the woods.
- E. A woman using the map in the mall to plan her route to an unfamiliar store.
- F. A boy asking a man on the street for directions.

3. The sentence below uses the word “navigate” metaphorically. Explain the metaphor.

In the days following the funeral, Muriel found it difficult to navigate through daily life, which was fraught with hidden rocks and shallow banks that were waiting to rip into her or leave her run aground.

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# Table of Measures

Keep for Future Reference

METRIC	CUSTOMARY
<b>Length</b>	
1 centimeter (cm) = 10 millimeters (mm) 1 meter (m) = 1,000 millimeters 1 meter = 100 centimeters 1 meter = 10 decimeters (dm) 1 kilometer (km) = 1,000 meters	1 foot (ft) = 12 inches (in.) 1 yard (yd) = 3 feet, or 36 inches 1 mile (mi) = 1,760 yards, or 5,280 feet
<b>Capacity</b>	
1 liter (L) = 1,000 milliliters (mL) 1 metric cup = 250 milliliters 1 liter = 4 metric cups 1 kiloliter (kL) = 1,000 liters	1 cup (c) = 8 fluid ounces (fl oz) 1 pint (pt) = 2 cups 1 quart (qt) = 2 pints, or 4 cups 1 gallon (gal) = 4 quarts
<b>Mass/Weight</b>	
1 gram (g) = 1,000 milligrams (mg) 1 gram = 100 centigrams (cg) 1 kilogram (kg) = 1,000 grams	1 pound (lb) = 16 ounces (oz) 1 ton (T) = 2,000 pounds

TIME
1 minute (min) = 60 seconds (sec) 1 half hour = 30 minutes 1 hour (hr) = 60 minutes 1 day = 24 hours 1 week (wk) = 7 days 1 year (yr) = 12 months (mo), or about 52 weeks 1 year = 365 days 1 leap year = 366 days 1 decade = 10 years 1 century = 100 years 1 millennium = 1,000 years

## SYMBOLS

$=$	is equal to	$\overleftrightarrow{AB}$	line $AB$
$\neq$	is not equal to	$\overrightarrow{AB}$	ray $AB$
$>$	is greater than	$\overline{AB}$	line segment $AB$
$<$	is less than	$\angle ABC$	angle $ABC$ , or angle $B$
$(2, 3)$	ordered pair $(x, y)$	$\triangle ABC$	triangle $ABC$
$\perp$	is perpendicular to	$^\circ$	degree
$\parallel$	is parallel to	$^\circ\text{C}$	degrees Celsius
		$^\circ\text{F}$	degrees Fahrenheit

## FORMULAS

Perimeter		Area	
Polygon	$P = \text{sum of the lengths of sides}$	Rectangle	$A = b \times h,$ or $A = bh$
Rectangle	$P = (2 \times l) + (2 \times w),$ or $P = 2l + 2w$		
Square	$P = 4 \times s,$ or $P = 4s$		
Volume			
	Rectangular prism	$V = B \times h,$ or $V = l \times w \times h$ $B = \text{area of base shape}, h = \text{height of prism}$	



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**Metric Measures**

**Essential Question** How can you compare and convert metric units?



Measurement and Data—  
5.MD.A.1

5<sup>th</sup> gr.

MATHEMATICAL PRACTICES  
MP2, MP6, MP7

Day #31

**Unlock the Problem** *Real World*

Using a map, Alex estimates the distance between his house and his grandparent's house to be about 15,000 meters. About how many kilometers away from his grandparent's house does Alex live?

- Underline the sentence that tells you what you are trying to find.
- Circle the measurement you need to convert.

The metric system is based on place value. Each unit is related to the next largest or next smallest unit by a power of 10.

**One Way** Convert 15,000 meters to kilometers.

kilo- (k)	hecto- (h)	deka- (da)	meter (m) liter (L) gram (g)	deci- (d)	centi- (c)	milli- (m)
Power of 10		Power of 10	Power of 10			

**STEP 1** Find the relationship between the units.

Meters are 3 powers of 10 smaller than kilometers.

There are 1000 meters in 1 kilometer.

**STEP 2** Determine the operation to be used.

I am converting from a smaller unit to a larger unit, so I will divide.  
↑ meters  
↓ Kilometers unit

**STEP 3** Convert.

number of meters		meters in 1 kilometer		number of kilometers
↓		↓		↓
15,000	÷	1000	=	15

So, Alex's house is 15 kilometers from his grandparent's house.

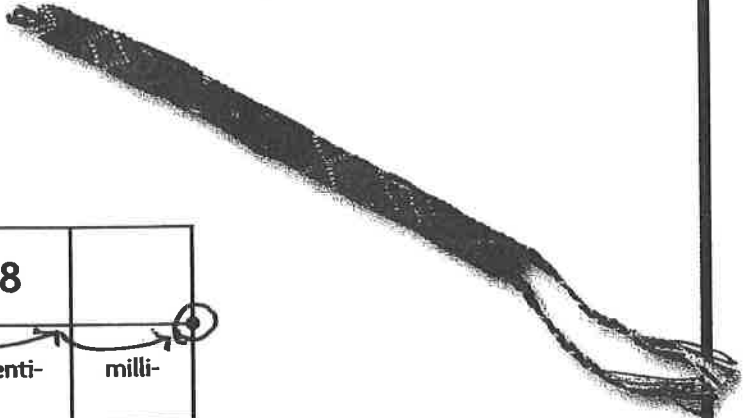


MATHEMATICAL PRACTICES **7**

Look for a Pattern Choose two units in the chart. Explain how you use powers of 10 to describe how the two units are related.

**Another Way** Use a diagram.

Jamie made a bracelet 1.8 decimeters long.  
How many millimeters long is Jamie's bracelet?



Convert 1.8 decimeters to millimeters.

				1	8	
kilo-	hecto-	deka-	meter liter gram	deci-	centi-	milli-

**STEP 1** Show 1.8 decimeters.

Since the unit is decimeters, place the decimal point to show decimeters as the unit.

**STEP 2** Convert. Do  
Cross out the decimal point and place it to show millimeters as the unit. Write zeros to the left of the decimal point as needed.

**STEP 3** Record the value with the new units.

1.8 dm = 180 mm

So, Jamie's bracelet is 180 millimeters long.

**Try This!** Complete the equation to show the conversion.

Important!

**A** Convert 247 milligrams to centigrams, decigrams, and grams.

Are the units being converted to a larger unit or a smaller unit? larger

Should you multiply or divide by powers of 10 to convert? ÷ divide

247 mg  $\left(\frac{\div}{10}\right)$  = 24.7 cg

247 mg  $\left(\frac{\div}{100}\right)$  = 2.47 dg

247 mg  $\left(\frac{\div}{1,000}\right)$  = 0.247 g

**B** Convert 3.9 hectoliters to dekaliters, liters, and deciliters.

Are the units being converted to a larger unit or a smaller unit? smaller

Should you multiply or divide by powers of 10 to convert? x multiply

3.9 hL  $\left(\frac{x}{10}\right)$  = 39 daL

3.9 hL  $\left(\frac{x}{100}\right)$  = 390 L

3.9 hL  $\left(\frac{x}{1,000}\right)$  = 3,900 dL

Name \_\_\_\_\_

# Share and Show



Complete the equation to show the conversion.

1.  $8.47 \text{ L} \times 10 = \underline{84.7} \text{ dL}$

$8.47 \text{ L} \times 100 = \underline{847} \text{ cL}$

$8.47 \text{ L} \times 1,000 = \underline{8,470} \text{ mL}$

Think: Are the units being converted to a larger unit or a smaller unit?

2.  $9,824 \text{ dg} \div 10 = \underline{982.4} \text{ g}$

$9,824 \text{ dg} \div 100 = \underline{98.24} \text{ dag}$

$9,824 \text{ dg} \div 1,000 = \underline{9.824} \text{ hg}$

Convert.

3.  $4,250 \text{ cm} = \underline{\hspace{2cm}} \text{ m}$

divide  
centi means 100  
 $4250 \div 100 =$

4.  $6,000 \text{ mL} = \underline{\hspace{2cm}} \text{ L}$

$6,000 \div 1000 =$

5.  $4 \text{ dg} = \underline{\hspace{2cm}} \text{ cg}$

larger to smaller  
 $4 \times 10 =$

Math Talk

### MATHEMATICAL PRACTICES 2

Reason Quantitatively How can you compare the lengths 4.25 dm and 4.25 cm without converting?

## On Your Own

Convert.

6.  $7 \text{ g} = \underline{\hspace{2cm}} \text{ mg}$

7.  $5 \text{ km} = \underline{\hspace{2cm}} \text{ m}$

8.  $1,521 \text{ mL} = \underline{\hspace{2cm}} \text{ dL}$

Compare. Write  $>$ ,  $<$ , or  $=$ .

9.  $32 \text{ hg} \bigcirc 3.2 \text{ kg}$

10.  $6 \text{ km} \bigcirc 660 \text{ m}$

11.  $525 \text{ mL} \bigcirc 525 \text{ cL}$

12. **MATHEMATICAL PRACTICE 2** Use Reasoning Are there less than 1 million, exactly 1 million, or greater than 1 million milligrams in 1 kilogram? Explain how you know.

\_\_\_\_\_

\_\_\_\_\_

13. **DEEPER** Parker ran 100 meters, 1 kilometer, and 5,000 centimeters. How many meters did he run all together?

100 meters  
1 km = \_\_\_\_\_ meters  
5,000 cm = \_\_\_\_\_ meters

Add all the meters together  
 $100\text{m} + \underline{\hspace{2cm}} \text{ m} + \underline{\hspace{2cm}} \text{ m} = \underline{\hspace{2cm}} \text{ m}$

Name \_\_\_\_\_

**Metric Measures**



**COMMON CORE STANDARD—5.MD.A.1**  
Convert like measurement units within a given measurement system.

**Convert.**

1.  $16 \text{ m} = \underline{16,000} \text{ mm}$

number of meters	millimeters in 1 meter	
↓	↓	
16	× 1,000	= 16,000

$16 \text{ m} = 16,000 \text{ mm}$

2.  $6,500 \text{ cL} = \underline{\hspace{2cm}} \text{ L}$

number of  
millimeters

↓

= 16,000

3.  $15 \text{ cm} = \underline{\hspace{2cm}} \text{ mm}$

4.  $3,200 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

5.  $12 \text{ L} = \underline{\hspace{2cm}} \text{ mL}$

6.  $200 \text{ cm} = \underline{\hspace{2cm}} \text{ m}$

7.  $70,000 \text{ g} = \underline{\hspace{2cm}} \text{ kg}$

8.  $100 \text{ dL} = \underline{\hspace{2cm}} \text{ L}$

9.  $60 \text{ m} = \underline{\hspace{2cm}} \text{ mm}$

**Compare. Write <, >, or =.**

10.  $900 \text{ cm} \bigcirc 9,000 \text{ mm}$

11.  $600 \text{ km} \bigcirc 5 \text{ m}$

12.  $5,000 \text{ cm} \bigcirc 5 \text{ m}$

13.  $18,000 \text{ g} \bigcirc 10 \text{ kg}$

14.  $8,456 \text{ mL} \bigcirc 9 \text{ L}$

15.  $2 \text{ m} \bigcirc 275 \text{ cm}$

**Problem Solving**



16. Bria ordered 145 centimeters of fabric. Jayleen ordered 1.5 meters of fabric. Who ordered more fabric?

17. Ed fills his sports bottle with 1.2 liters of water. After his bike ride, he drinks 200 milliliters of the water. How much water is left in Ed's sports bottle?

18. **WRITE** Math Explain the relationship between multiplying and dividing by 10, 100, and 1,000 and moving the decimal point to the right or to the left.

• When multiplying by 10, 100, & 1,000 the decimal point moves to the right (the # of zeros) example  $47.2 \times 100 = 4720$

• When dividing by 10, 100, & 1,000 the decimal point moves to the left (the # of zero) example  $627 \div 10 = 62.7$

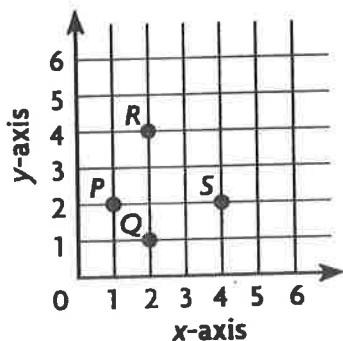
## Lesson Check (5.MD.A.1)

1. Quan bought 8.6 meters of fabric. How many centimeters of fabric did he buy?
2. Jason takes 2 centiliters of medicine. How many milliliters is this?

## Spiral Review (5.NF.A.1, 5.MD.A.1, 5.G.A.1)

3. Yolanda needs 5 pounds of ground beef to make lasagna for a family reunion. One package of ground beef weighs  $2\frac{1}{2}$  pounds. Another package weighs  $2\frac{3}{5}$  pounds. How much ground beef will Yolanda have left over after making the lasagna?
4. A soup recipe calls for  $2\frac{3}{4}$  quarts of vegetable broth. An open can of broth contains  $\frac{1}{2}$  quart of broth. How much more broth do you need to make the soup?

5. Which point on the graph is located at (4, 2)?



6. A bakery supplier receives an order for 2 tons of flour from a bakery chain. The flour is shipped in crates. Each crate holds eight 10-pound bags of flour. How many crates does the supplier need to ship to fulfill the order?



Name \_\_\_\_\_

## Problem Solving • Customary and Metric Conversions



**COMMON CORE STANDARD—5.MD.A.1**  
Convert like measurement units within a given measurement system.

Solve each problem by making a table.

1. Thomas is making soup. His soup pot holds 8 quarts of soup. How many 1-cup servings of soup will Thomas make?

Number of Quarts	1	2	3	4	8
Number of Cups	4	8	12	16	32

32 1-cup servings

2. Paulina works out with a 2.5-kilogram mass. What is the mass of the 2.5-kilogram mass in grams?

3. Alex lives 500 yards from the park. How many inches does Alex live from the park?

4. A flatbed truck is loaded with 7,000 pounds of bricks. How many tons of brick are on the truck?

5. **WRITE** ▶ *Math* Explain how you could use the conversion table on page 618 to convert 700 centimeters to meters.

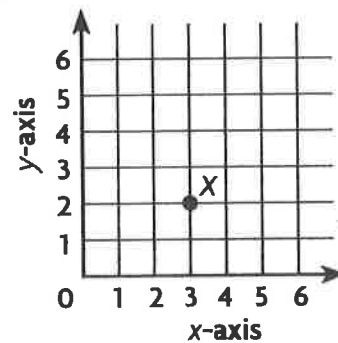
## Lesson Check (5.MD.A.1)

1. At the hairdresser, Jenny had 27 centimeters cut off her hair. How many decimeters of hair did Jenny have cut off?
2. Marcus needs 108 inches of wood to make a frame. How many feet of wood does Marcus need for the frame?

## Spiral Review (5.NF.B.7c, 5.MD.A.1, 5.G.A.1)

3. Tara lives 35,000 meters from her grandparents. How many kilometers does Tara live from her grandparents?
4. Dane's puppy weighed 8 ounces when it was born. Now the puppy weighs 18 times as much as it did when it was born. How many pounds does Dane's puppy weigh now?

5. A carpenter is cutting dowels from a piece of wood that is 10 inches long. How many  $\frac{1}{2}$ -inch dowels can the carpenter cut?
6. What ordered pair describes the location of point X?



5<sup>th</sup> Grade

NTI Day 32

Name:

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School:

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# Animal endangerment and its causes

By Gale, Cengage Learning, adapted by Newsela staff on 04.06.20

Word Count 876

Level 950L



The Siberian tiger is an endangered tiger subspecies. Three tiger subspecies are already extinct. Photo from the public domain.

Living things have been disappearing since the beginning of life on our planet. In fact, most species that have ever lived on Earth are now extinct, or no longer living.

Extinction can occur naturally as a normal process, or it can be the result of a major event. For example, scientists believe an asteroid struck Mexico about 65 million years ago. Almost 50 percent of plant species and 75 percent of animal species, including the dinosaurs, became extinct.

Species are continually disappearing. This is the result of diseases, competition from other species or natural change in their climate. Scientists have identified five extinction episodes like this before humans existed.

When humans became the most powerful species, the extinction rate of other species began to increase dramatically.

Species are disappearing faster than they can be created. Therefore, the planet has entered a sixth wave of mass extinction. Scientists believe this wave is caused by human activity.

It is impossible to measure the number of species going extinct because there are millions that have not even been discovered yet. It is thought that amphibians and corals are the animal groups at highest risk of extinction. About 40 percent of each group is threatened. About 25 percent of animals and 13 percent of birds are at risk.

People are endangering species in three ways: habitat destruction, commercial use of animals and plants, and the introduction of new species into habitats. Human activity has also sped up climate change. If climate change continues at its current level, 25 percent of all species could be at risk by 2050.

### **Habitat Destruction**

The destruction of habitats is the main reason species are becoming extinct. Houses, buildings, farms and roads sit on what used to be forests, deserts and wetlands. The pollution from people and our activities also threatens habitats. For example, sewage and chemicals can change rivers and streams that animals depend on.

For instance, 46,000 to 58,000 square miles of forest each year are destroyed worldwide. That is the equivalent of 36 football fields each minute. Tropical rain forests, home to 50 percent of all animal and plant species, once occupied 6 million square miles worldwide. Now, only 2.4 million square miles remain.

When species' habitats become smaller, more species are crowded together. This can cause more competition for fewer resources and space. So, access to food, water and mates may become limited.

### **Commercial Exploitation**

Throughout history, animals have been hunted by humans for their meat and to be used to create clothing, medicines, art and other things. Overhunting has threatened many species, including whales, the black rhinoceros and the bluefin tuna.

Other species are threatened because they are collected or captured as pets or for trading.

International treaties outlaw the capture and trade of certain species, but these laws are difficult to carry out. Many endangered species live in very remote places. These places are difficult for law enforcement officials to monitor.

### **Introduced Species**



Native species have lived in a certain place for a long period of time. They have adapted to the environment, climate and other species also living there.

Introduced species have been brought into an area by humans. This can be either by accident or on purpose.

In some cases, these introduced species may not cause harm and may adapt in time.

But, most often introduced species throw off ecological balances. They compete with native species for food and shelter. Often, introduced species prey on the native species and may bring new diseases.

When introduced species cause harm, they are called invasive species. More than 40 percent of threatened or endangered species are at risk because of invasive species.

### **Climate Change**

People burn fossil fuels such as coal to make electricity. This is one way to heat our homes and provide light. We burn oil, in the form of gasoline, to power our cars. Burning fossil fuels releases carbon dioxide into the air, which traps Earth's heat. The levels of carbon dioxide in the atmosphere have increased since the 1800s. This is when many countries began using machinery.

Earth's temperature is still continuing to increase, which is called global warming. Climate change is a related term. It refers to all major, long-lasting changes in climate. This includes global warming but also severe heat waves and changes in rainfall that lead to floods or droughts.

Climate change threatens different species in many ways. Melting sea ice causes sea levels to rise, which could take over areas where animal and plant species live. Warmer temperatures on land can force animals to move or wake animals too early from hibernation.

Often the effects of climate change cause a chain reaction. One example is when rising temperatures reduce the algae population in oceans. This harms sea animals that eat algae, which then harms whales that eat these sea animals.

Some scientists believe climate change has already contributed to the extinction of one species: the golden toad, a small, bright orange amphibian from Central America.

## Quiz

1 What is an animal that may become extinct because of commercial exploitation?

- (A) coral
- (B) golden toad
- (C) bluefin tuna
- (D) zebra mussels

2 Read the following selection from the section "Habitat Destruction."

*This can cause more competition for fewer resources and space. So, access to food, water and mates may become limited.*

Which of the following words, if it replaced the word "limited" in the sentence above, would CHANGE the meaning of the sentence?

- (A) smaller
- (B) reduced
- (C) abundant
- (D) obscure

3 Based on the current rate of climate change, what percent of species will be at risk of extinction by 2050?

- (A) 13%
- (B) 25%
- (C) 40%
- (D) 50%

4 Read the selection from the section "Habitat Destruction." Then, fill in the blank.

*For instance, 46,000 to 58,000 square miles of forest each year are destroyed worldwide. That is the equivalent of 36 football fields each minute. Tropical rain forests, home to 50 percent of all animal and plant species, once occupied 6 million square miles worldwide. Now, only 2.4 million square miles remain.*

The phrase, "That is the equivalent of 36 football fields each minute" in the section above tells the reader that \_\_\_\_\_

- (A) is a large size of land being destroyed yearly
- (B) things are being built when habitats are cleared
- (C) tropical rain forests should replace football fields
- (D) habitat extinction is more important than football

5 How would taking out introduced species help reduce the chances of native species becoming extinct?

- (A) Native species would not adapt.
- (B) Native species would go extinct.
- (C) Native species can only adapt when they are alone.
- (D) Native species would not have to fight for food and shelter.

- 6 How do the image and the text in the introduction [paragraphs 1-7] give a coherent understanding of animal endangerment?
- (A) The text explains the reasons jaguars are endangered and the image gives an example of animals facing endangerment.
  - (B) The text explains why humans are to blame for the extinction of animals and the image gives an example of an extinct animal.
  - (C) The text explains the various causes of extinction and the image gives an example of an animal facing endangerment.
  - (D) The text explains the causes that contribute to animal extinction and the image gives an example of one of the causes of endangerment.
- 7 How is climate affecting whales?
- (A) Whales are affected directly because they are hunted.
  - (B) Whales are affected directly because the water is becoming too warm for them to adapt.
  - (C) Whales are affected indirectly because their habitat is becoming polluted, which causes disease.
  - (D) Whales are affected indirectly by a reduction in food sources for the sea animals they eat.
- 8 Which answer choice accurately compares and contrasts how the images in the article contribute to your understanding of endangerment?
- (A) The images at the top of the article and near the end of the introduction [paragraphs 1-7] show animals that are endangered, while the image in the section "Habitat Destruction" depicts one way that humans destroy species' habitats.
  - (B) The images at the top of the article and near the end of the introduction [paragraphs 1-7] show animals that have become extinct, while the image in the section "Habitat Destruction" depicts the area where they used to live.
  - (C) The images at the top of the article and near the end of the introduction [paragraphs 1-7] show endangered animals in captivity, while the image in the section "Habitat Destruction" shows how the animals' habitats are being rebuilt.
  - (D) The images at the top of the article and near the end of the introduction [paragraphs 1-7] show that endangered species can produce offspring, while the image in the section "Habitat Destruction" shows that the offspring have nowhere to live.

# NARRATOR



To **narrate** means to give a spoken or written account of something. A **narrator** is a person who tells a story. In a book, the narrator can be a character in the story that is actually participating in events, or it can be a character in the story that is merely observing and reporting on what is going on. A narrator can be **omniscient**, or they may be limited to telling only what they see and hear firsthand themselves. Narrators can interpret, react to and comment on the story, or they can be un-intrusive, simply recounting what occurs without having an opinion on it.

1. Look up the word "omniscient" in the dictionary. Write its definition on the line.

---

Read the examples of narration below.

A. From *Dracula* by Bram Stoker

What I saw was the Count's head coming out from the window. I did not see the face, but I knew the man by the neck and the movement of his back and arms. In any case I could not mistake the hands which I had had so many opportunities of studying.

B. From *A Christmas Carol* by Charles Dickens

Oh! But he was a tight-fisted hand at the grindstone, Scrooge! A squeezing, wrenching, grasping, scraping, clutching, covetous old sinner! Hard and sharp as flint, from which no steel had ever struck out generous fire; secret, and self-contained, and solitary as an oyster.

C. From *Little Women* by Louisa May Alcott

The four young faces on which the firelight shone brightened at the cheerful words, but darkened again as Jo said sadly, "We haven't got Father, and shall not have him for a long time." She didn't say "perhaps never," but each silently added it, thinking of Father far away, where the fighting was.

2. Which example has an omniscient narrative voice? \_\_\_\_\_

3. Which example is narrated by a participant in the story? \_\_\_\_\_

4. In which example is the narrator expressing an opinion? \_\_\_\_\_

Name \_\_\_\_\_

# Elapsed Time

**Essential Question** How can you solve elapsed time problems by converting units of time?



Measurement and Data—  
5.MD.A.1

MATHEMATICAL PRACTICES  
MP6, MP7

5th gr

Day # 32

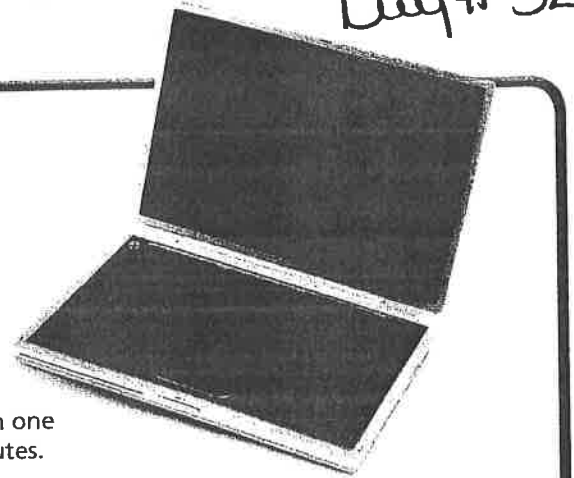
## Unlock the Problem Real World

A computer company claims its laptop has a battery that lasts 4 hours. The laptop actually ran for 200 minutes before the battery ran out. Did the battery last 4 hours?



1 hour = 60 minutes

Think: The minute hand moves from one number to the next in 5 minutes.



**1** Convert 200 minutes to hours and minutes.

**STEP 1** Convert minutes into hours and minutes.

200 min = 3 hr 20 min

total min	min in 1 hr	hr	min
↓	↓	↓	↓
<u>200</u> $\div$	<u>60</u>	is	<u>3</u> r <u>20</u>

**STEP 2** Compare. Write  $<$ ,  $>$ , or  $=$ .

3 hr 20 min  $<$  4 hr

Since 3 hours 20 minutes is less than 4 hours, the battery did not last as long as the computer company claims.

**Try This!** Convert to mixed measures.

Jill spent much of her summer away from home. She spent 10 days with her grandparents, 9 days with her cousins, and 22 days at camp. How many weeks and days was she away from home?

**STEP 1** Find the total number of days away.

10 days + 9 days + 22 days = 41 days

**STEP 2** Convert the days into weeks and days.

41  $\div$  7 is 5 r 6

So, Jill was away from home 5 weeks and 6 days.

### Units of Time

60 seconds (s) = 1 minute (min)

60 minutes = 1 hour (hr)

24 hours = 1 day (d)

7 days = 1 week (wk)

52 weeks = 1 year (yr)

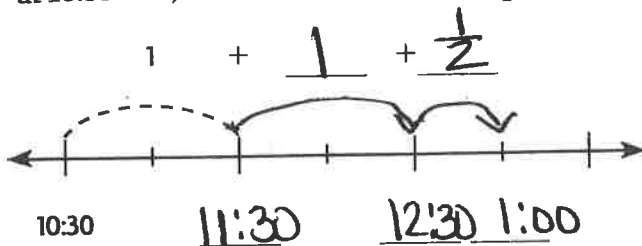
12 months (mo) = 1 year

365 days = 1 year

**\*Important\***

**One Way** Use a number line to find elapsed time.

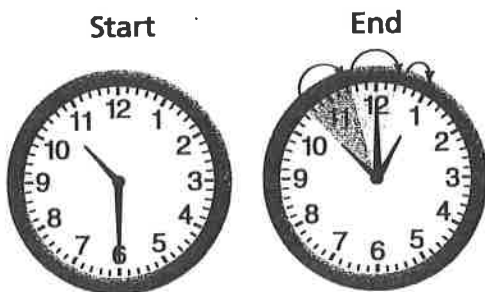
Monica spent  $2\frac{1}{2}$  hours working on her computer. If she started working at 10:30 A.M., what time did Monica stop working?



Think:  $\frac{1}{2}$  hour = 30 minutes



**Another Way** Use a clock to find elapsed time.



So, Monica stopped working at 1:00 PM.

**Try This!** Find a start time.

Robert's soccer team needs to be off the soccer field by 12:15 P.M. Each game is at most  $1\frac{3}{4}$  hours long. What time should the game begin to be sure that the team finishes on time?

$\frac{1}{4}$  hour = 15 minutes, so  $\frac{3}{4}$  hour = 45 minutes

**STEP 1** Subtract the minutes first.



45 minutes earlier is 11:30 AM

So, the game should begin at 10:30 AM

**STEP 2** Then subtract the hour.



1 hour and 45 minutes earlier is 10:30 AM



**MATHEMATICAL PRACTICES 6**

Explain how you could convert 3 hours 45 minutes to minutes.



# Share and Show



Convert. 60 mins in an hour

24 hrs in a day

24 hrs in a day

1. 540 min = \_\_\_\_\_ hr

$540 \div 60$

2. 8 d = \_\_\_\_\_ hr

$8 \times 24$

3. 110 hr = \_\_\_\_\_ d \_\_\_\_\_ hr

$110 \div 24$

**Math Talk**

**MATHEMATICAL PRACTICES 1**

**Make Sense of Problems**  
How can you find how long a movie lasts if it starts at 1:35 P.M. and ends at 3:40 P.M.?

**Find the end time.**

4. Start time: 9:17 A.M.

Elapsed time: 5 hr 18 min

End time: 2:35 PM



9:17 + 5 hrs would be 2:17  
2:17 + 18 mins would be 2:35

## On Your Own

**Find the start, elapsed, or end time.**

5. Start time: 11:38 A.M.

Elapsed time: 3 hr 10 min

End time: \_\_\_\_\_

11:38 + 3 hrs would be \_\_\_\_\_ + 10 mins would be \_\_\_\_\_

6. Start time: \_\_\_\_\_

Elapsed time: 2 hr 37 min

End time: 1:15 P.M.

7. Start time: \_\_\_\_\_

Elapsed time:  $2\frac{1}{4}$  hr

End time: 5:30 P.M.

8. Start time: 7:41 P.M.

Elapsed time: \_\_\_\_\_

End time: 8:50 P.M.

9. **WRITE** Math Explain how you could find the number of seconds in a full 24-hour day. Then solve.

24 hrs \_\_\_\_\_ mins in a day  $(24 \times 60 \text{ mins})$   
 ↓  
 \_\_\_\_\_ mins in a day = \_\_\_\_\_ seconds  
 (\_\_\_\_\_  $\times 60 \text{ secs}$ )

# Problem Solving • Applications Real World

For 10–12, use the graph.

10. **MATHEMATICAL PRACTICE 4** Use Graphs Which Internet services downloaded the podcast in less than 4 minutes?

Think:  
4 mins = \_\_\_\_\_ secs

\_\_\_\_\_

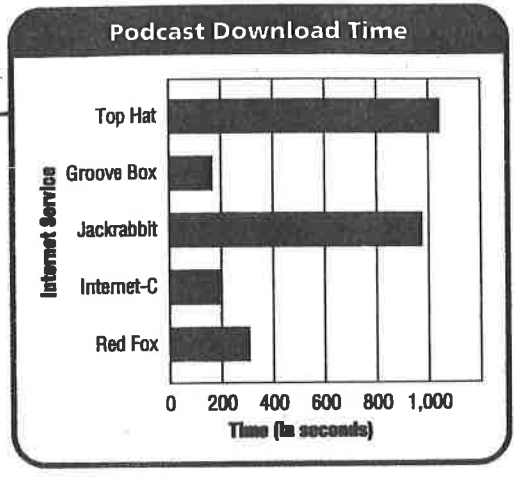
11. **THINK SMARTER** Which service took the longest to download the podcast? How much longer did it take than Red Fox in minutes and seconds?

\_\_\_\_\_

12. **GO DEEPER** If both Jackrabbit and Red Fox started the podcast download at 10:05 A.M., at what time did each service complete its download? What was the difference between these times?

\_\_\_\_\_

\_\_\_\_\_



## Personal Math Trainer

13. **THINK SMARTER +** Samit and his friends went to a movie at 7:30 P.M. The movie ended at 9:55 P.M. How long was the movie?

\_\_\_\_\_

Samit arrived home 35 minutes after the movie ended. What time did Samit get home? Explain how you found your answer.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Name \_\_\_\_\_

# Elapsed Time



**COMMON CORE STANDARD—5.MD.A.1**  
Convert like measurement units within a given measurement system.

Convert.

1. 5 days = 120 hr

2. 8 hr = \_\_\_\_\_ min

3. 30 min = \_\_\_\_\_ s

**Think:** 1 day = 24 hours

$5 \times 24 = 120$

4. 15 hr = \_\_\_\_\_ min

5. 5 yr = \_\_\_\_\_ d

6. 7 d = \_\_\_\_\_ hr

7. 24 hr = \_\_\_\_\_ min

8. 600 s = \_\_\_\_\_ min

9. 60,000 min = \_\_\_\_\_ hr

Find the start, elapsed, or end time.

10. Start time: 11:00 A.M.

Elapsed time: 4 hours 5 minutes

End time: \_\_\_\_\_

11. Start time: 6:30 P.M.

Elapsed time: 2 hours 18 minutes

End time: \_\_\_\_\_

12. Start time: \_\_\_\_\_

Elapsed time:  $9\frac{3}{4}$  hours

End time: 6:00 P.M.

13. Start time: 2:00 P.M.

Elapsed time: \_\_\_\_\_

End time: 8:30 P.M.

## Problem Solving



14. Kiera's dance class starts at 4:30 P.M. and ends at 6:15 P.M. How long is her dance class?

15. Julio watched a movie that started at 11:30 A.M. and ended at 2:12 P.M. How long was the movie?

\_\_\_\_\_

16. **WRITE** *Math* Write a real-world word problem that can be solved using elapsed time. Include the solution.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## Lesson Check (5.MD.A.1)

- Michelle went on a hike. She started on the trail at 6:45 A.M. and returned at 3:28 P.M. How long did she hike?
- Grant started a marathon at 8:00 A.M. He took 4 hours 49 minutes to complete the marathon. When did he cross the finish line?

## Spiral Review (5.NBT.A.3b, 5.NFA.1, 5.NFB.6, 5.MD.A.1)

- Molly is filling a pitcher that holds 2 gallons of water. She is filling the pitcher with a 1-cup measuring cup. How many times will she have to fill the 1-cup measuring cup to fill the pitcher?
- Choose a symbol to make the following statement true. Write  $>$ ,  $<$ , or  $=$ .

$$1.625 \bigcirc 1.7$$

- Adrian's recipe for raisin muffins calls for  $1\frac{3}{4}$  cups raisins for one batch of muffins. Adrian wants to make  $2\frac{1}{2}$  batches of the muffins for a bake sale. How many cups of raisins will Adrian use?
- Kevin is riding his bike on a  $10\frac{1}{8}$ -mile bike path. He has covered the first  $5\frac{3}{4}$  miles already. How many miles does he have left to ride?



5<sup>th</sup> Grade

NTI Day 33

Name:

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School:

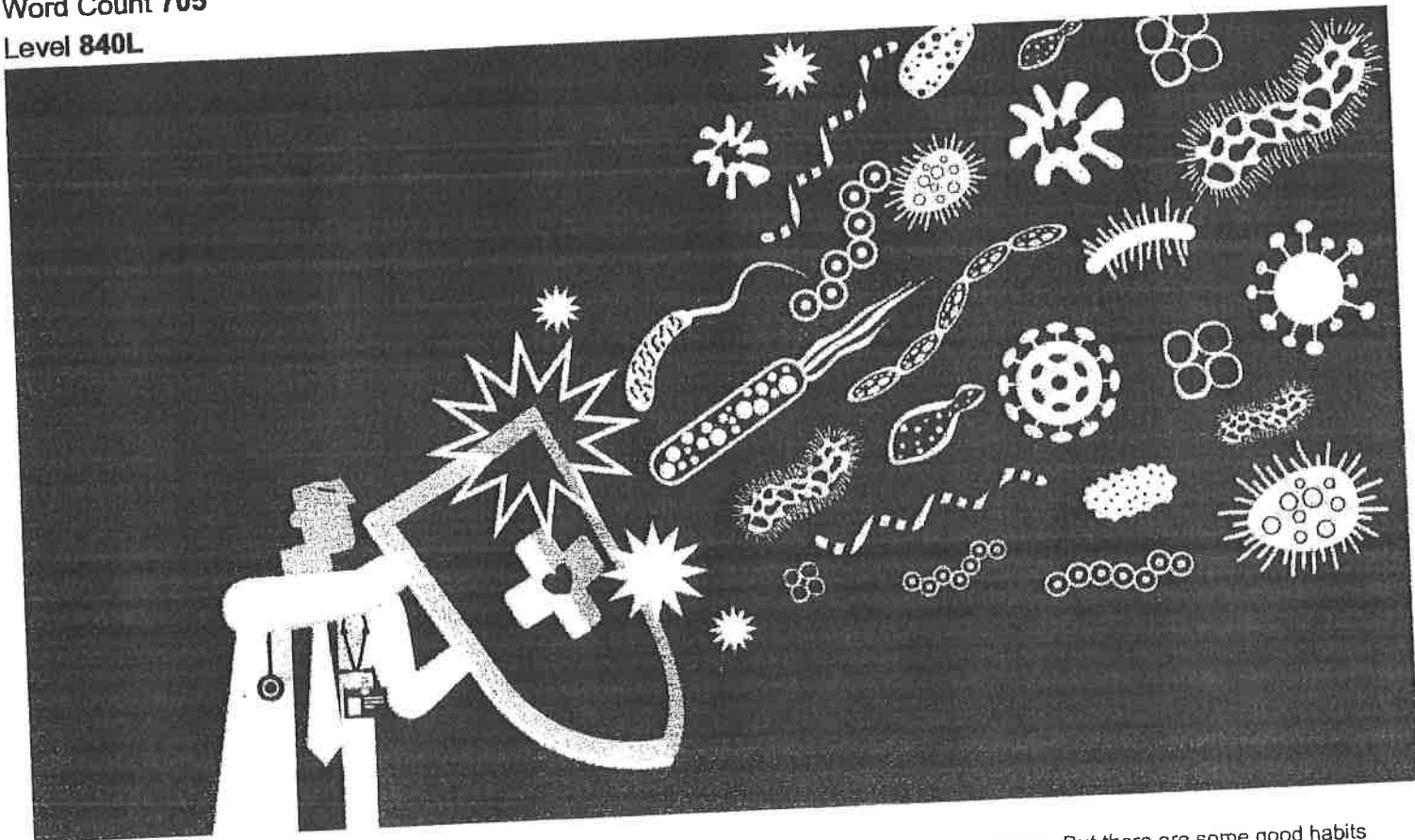
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# Is it possible to never get sick?

By The Guardian, adapted by Newsela staff on 04.06.20

Word Count 705

Level 840L



The immune system is how our body fights against illnesses. How it works depends mostly on our genes. But there are some good habits that help us not get sick. Photo: Getty Images

Every now and then one pops up, the person who claims never to get sick. They appear superhuman. In these people, the immune system, the part of the body that fights illness, is so powerful the rest of us can only dream about it. What are their secrets? Do they even exist?

Each of us will get around 200 colds in a lifetime. Some appear to suffer more than others. However, there is no data or studies on why, or if, that's true. There is no scientifically proven link between lifestyle and a better-working immune system. Your immune system is the body's defense against infections that works to keep us healthy.

However, the immune-boosting business is going strong. Nutritional supplements are pills and powders you take. Some are thought to help keep you healthy, but many others need more research. They are thought to be one of the world's fastest-growing businesses.

**Doctors Doubt Superhuman Immunity**

For doctors and immunologists, the notion of superhuman health remains at best unproven. At worst, it's fiction. This is because our immune systems are almost as specific as fingerprints. All of our genes are passed down, or inherited, from our parents. This includes genes for our immune system. Genes themselves contain the instructions for how our bodies grow and work.

"Some of us inherit a set of immune system genes that are particularly good at dealing with one particular virus," explains Daniel Davis. He is a professor of immunology at the University of Manchester. He says there are a lot of differences in how our immune systems respond to different diseases. Those differences are important to how humans survive disease.

Many of these differences are from our inherited genes. "The genes that vary most between us all are the ones that influence the immune system," Davis explains.

### **Vaccinations And Exposure To Viruses**

These differences makes statements about stronger or weaker immune systems meaningless. They also throw into question the benefits of products claiming to improve immunity. Do they work?

Davies says we simply don't know.

Why do some people seem better at fighting infection? Doctor and Guardian writer Ann Robinson says maybe those people are simply better prepared. They may have had vaccinations or been around viruses early and so on. "Each person is wired to be slightly better at fighting off some illnesses and slightly worse at fighting off others," is how Davies explains it.

### **Guts Are Important, Stress Is Bad**

Both Robinson and Davies point to growing information showing that our gut microbiome impacts the immune system. The gut microbiome is the range and number of microbes in our guts. Is there a link between what we eat and immunity? Davies says, "Although gut microbiome directly affects the immune system, precisely how isn't yet clear."

For Dr. Natalie Riddell, lifestyle plays a major part in how our immune response works. She is an instructor in immunology at the University of Surrey and spokesperson for the British Society for Immunology. She studies how stress can negatively affect how the immune system works.

### **How To Never Get Ill**

There is no such thing as never getting sick. Yet there are a few things you can do to help keep yourself healthy.

Don't smoke and don't drink too much alcohol.

Wash your hands regularly. Remember that infections are mostly passed on through being near someone.

Exercise regularly. Remember to rest. Science shows that regular exercise can improve immunity. How much is unknown.

Manage stress. "Stress levels relate to your immune system's behavior," says Professor Davies.

**Immunize! Are you at increased risk of infection? Vaccines prepare your immune system to fight against the germs that cause diseases.**

**Eat a healthy diet with many different kinds of foods. This connects to the latest studies around how important our gut microbiome is. "A lot of the chemicals important to our immune system," says Robinson, come from the gut.**

**Sleep well. Dr. Riddell says that sleep has a huge effect on the immune system. Disturbing your sleep rhythms can throw off your immune system.**

**Stay connected with other people. "If there is one thing that's the enemy of wellbeing, it's loneliness," says Robinson. "Get out there and connect with people"**



## Quiz

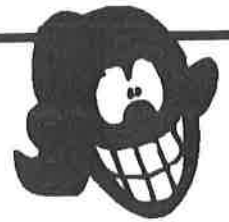
- 1 Which sentence from the article supports the MAIN idea of the article?
- (A) Nutritional supplements are pills and powders you take to improve your health.
  - (B) This is because our immune systems are almost as specific as fingerprints.
  - (C) The gut microbiome is the range and number of microbes in our guts.
  - (D) Disturbing your sleep rhythms can throw off your immune system.

- 2 Read the following paragraph from the article.

*Both Robinson and Davies point to growing information showing that our gut microbiome impacts the immune system. The gut microbiome is the range and number of microbes in our guts. Is there a link between what we eat and immunity? Davies says, "Although gut microbiome directly affects the immune system, precisely how isn't yet clear."*

Which statement summarizes the paragraph?

- (A) Healthy people have a good range and number of microbes in their guts.
  - (B) Good eating habits directly affect the immune system and overall health.
  - (C) Scientists know that the gut microbiome affects the immune system but are not sure how.
  - (D) More information is coming out about the importance of a healthy gut microbiome.
- 3 What is the relationship between sleep and the immune system?
- (A) People with healthy immune systems need very little sleep.
  - (B) A good sleep routine can help to strengthen the immune system.
  - (C) Resting in the middle of each day can weaken the immune system.
  - (D) People who sleep late in the morning have healthier immune systems.
- 4 According to the section "Vaccinations And Exposure To Viruses," how do people successfully fight infection?
- (A) by inheriting good genes that have the ability to fight off some illnesses
  - (B) by taking nutritional supplements and other products to boost immunity
  - (C) by being better prepared with vaccinations or early exposure to viruses
  - (D) by washing their hands and not touching anything outside their homes



## Character Traits

### KEY WORDS

**industrious**

**independent**

**dedicated**

**DIRECTIONS:** Use a dictionary to look up each of the key words. Then read the sentences below. Use one of the key words to fill in the blank in each sentence.

1. A person who works very hard can be described as \_\_\_\_\_.
2. A person who can support himself financially without help can be described as \_\_\_\_\_.
3. A person who is devoted to something can be described as being \_\_\_\_\_ to it.
4. Jordan can't wait until he is old enough to be \_\_\_\_\_ from his parents.
5. Hannah always gets good grades because she is \_\_\_\_\_ to her studies.
6. Kevin likes to watch ants work because they are so \_\_\_\_\_.

## Chapter 11 Vocabulary

Keep for future  
reference (may need for  
days 33-39)

**base**

base

1

**congruent**

congruente

8

**equilateral triangle**

triángulo equilátero

21

**heptagon**

heptágono

29

**isosceles triangle**

triángulo isósceles

33

**lateral face**

cara lateral

34

**nonagon**

eneágono

41

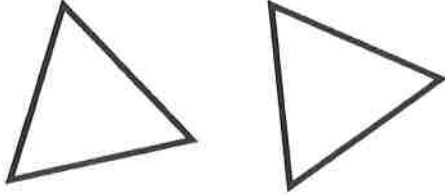
**polygon**

polígono

51

Having the same size and the same shape

Examples:



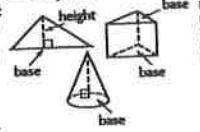
(arithmetic) A number used as a repeated factor

Example:  $8^3 = 8 \times 8 \times 8$

↑  
base

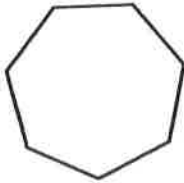
(geometry) In two dimensions, one side of a triangle or parallelogram that is used to help find the area. In three dimensions, a plane figure, usually a polygon or circle, by which a three-dimensional figure is measured or named

Examples:



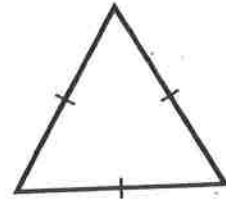
A polygon with seven sides and seven angles

Example:



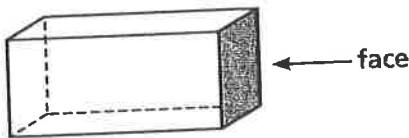
A triangle with three congruent sides

Example:



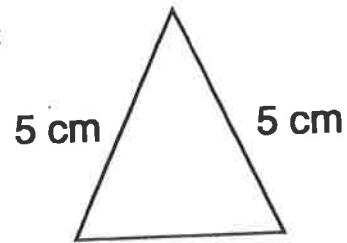
Any surface of a polyhedron other than a base

Example:



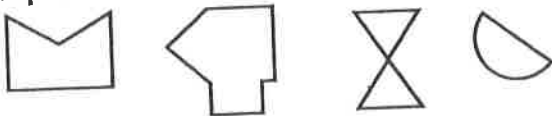
A triangle with two congruent sides

Example:



A closed plane figure formed by three or more line segments

Examples:

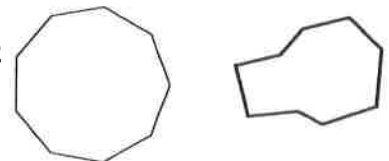


Polygons

Not Polygons

A polygon with nine sides and nine angles

Examples:



**Chapter 11 Vocabulary** *(continued)*

**polyhedron**

poliedro

52

**prism**

prisma

53

**pyramid**

pirámide

55

**quadrilateral**

cuadrilátero

56

**regular polygon**

polígono regular

58

**scalene triangle**

triángulo escaleno

62

**unit cube**

cubo unitaria

69

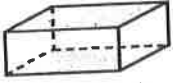
**volume**

volumen

70

A solid figure that has two congruent, polygon-shaped bases, and other faces that are all rectangles

Examples:



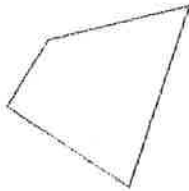
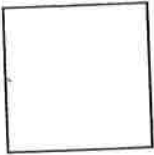
rectangular prism



triangular prism

A polygon with four sides and four angles

Examples:



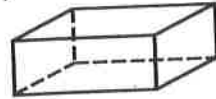
A triangle with no congruent sides

Example:



A solid figure with faces that are polygons

Examples:



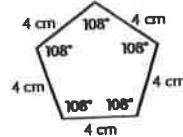
A solid figure with a polygon base and all other faces are triangles that meet at a common vertex

Example:



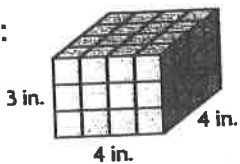
A polygon in which all sides are congruent and all angles are congruent

Example: a regular pentagon

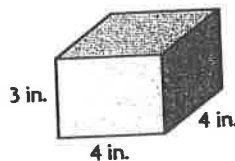


The measure of the space that a solid figure occupies

Example:

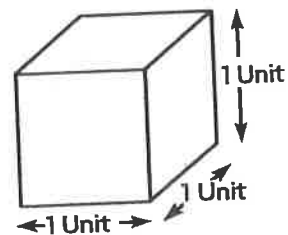


48 cu in.



A cube that has a length, width, and height of 1 unit

Example:



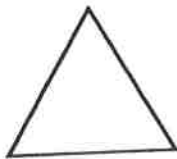
# Plane Figures

Day # 33

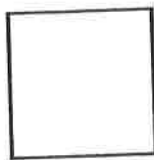
## Getting the Idea

A **two-dimensional figure** is a **plane figure**. A **polygon** is a closed plane figure with straight sides. A side is a **line segment**. A polygon is classified by its number of **sides**, **angles**, or **vertices**.

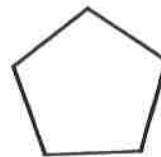
A **regular polygon** has all equal sides and all equal angles. Some regular polygons are shown below.



**triangle**  
3 sides  
3 angles



**square**  
4 sides  
4 angles



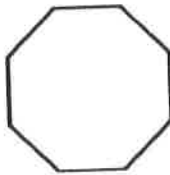
**pentagon**  
5 sides  
5 angles



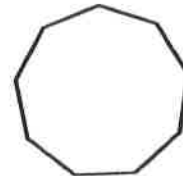
**hexagon**  
6 sides  
6 angles



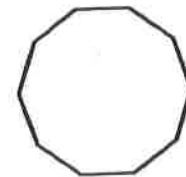
**heptagon**  
7 sides  
7 angles



**octagon**  
8 sides  
8 angles

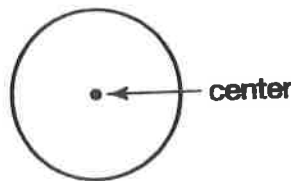


**nonagon**  
9 sides  
9 angles



**decagon**  
10 sides  
10 angles

A **circle** is a plane figure with all points an equal distance from a point called the **center**. A circle is not a polygon because it does not have straight sides.



### Example 1

What is the name of this polygon? Is the figure a regular polygon?



**Strategy** Count the number of sides.

**Step 1** A side is a line segment.

There are 6 line segments.

**Step 2** A regular polygon has all equal sides and equal angles.

The sides are different lengths and the angles have different measures.

**Solution** The figure is a hexagon, but it is not a regular hexagon.

An **irregular polygon** is a polygon that does not have all equal sides and all equal angles.

### Example 2

Jerome saw this traffic sign while walking to school.



Is the sign a regular or irregular polygon?

**Strategy** Identify the two-dimensional figure.

**Step 1** Count the number of sides.

A side is a line segment.

There are 5 line segments.

The sign is a pentagon.

**Step 2** A regular polygon has all equal sides and equal angles.

The sides are not all the same length and the angles do not all have the same measure.

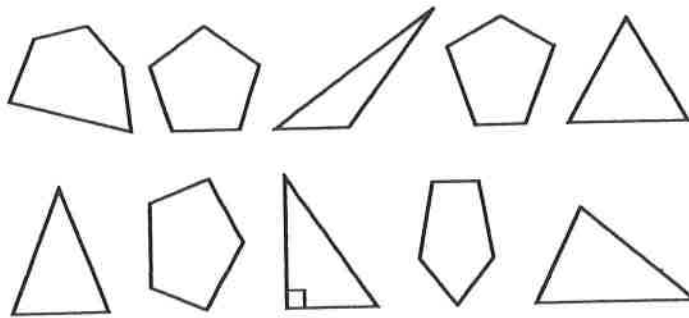
The sign is an irregular polygon.

**Solution** The traffic sign is an irregular pentagon.



### Example 3

Sort the figures below.



#### Strategy

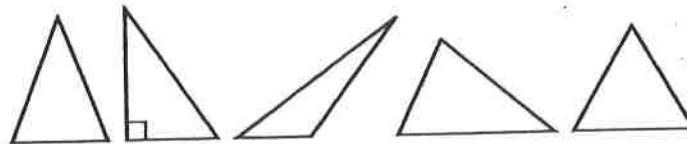
Determine how the figures are alike and different.

##### Step 1

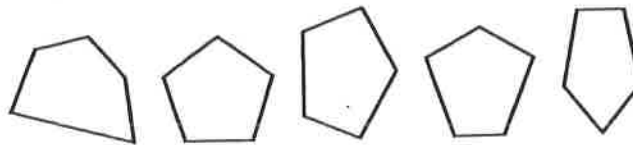
Determine how the figures are alike.

All of the figures are polygons.

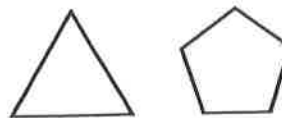
Some figures have 3 sides.



Some figures have 5 sides.



Some figures are regular polygons.

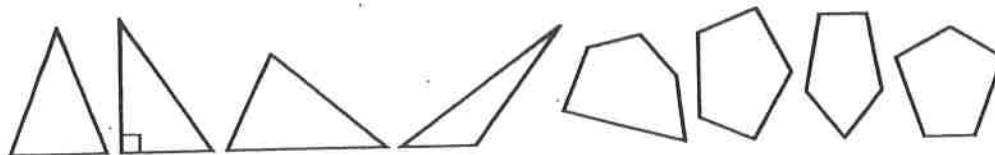


##### Step 2

Determine how the figures are different.

Some figures have unequal side lengths.

They are irregular polygons.



**Solution** The figures are shown sorted in the steps above.

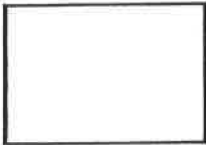
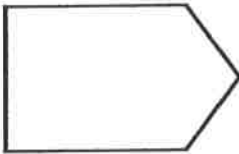
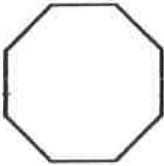
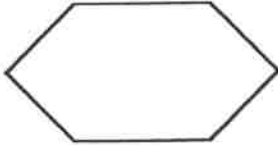
## Lesson Practice

Choose the correct answer.

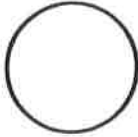
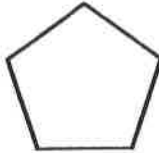
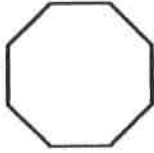

1. Which has 7 sides and 7 angles?

- A. heptagon
- B. hexagon
- C. pentagon
- D. octagon

2. Which is a regular polygon?

- A. 
- B. 
- C. 
- D. 

3. Which is not a polygon?

- A. 
- B. 
- C. 
- D. 

4. How many sides does a decagon have?

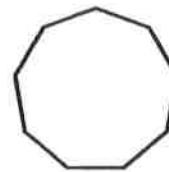
- A. 6
- B. 8
- C. 10
- D. 12

5. What is the name of this figure?



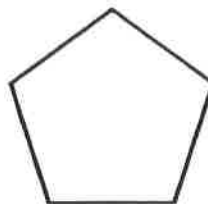
- A. triangle
- B. rectangle
- C. heptagon
- D. octagon

6. What is the name of this figure?



- A. decagon
- B. nonagon
- C. hexagon
- D. pentagon

7. Look at the figure below.



A. Identify the figure.

---

B. Does the figure appear to be a regular or an irregular polygon?  
Explain your answer.

---

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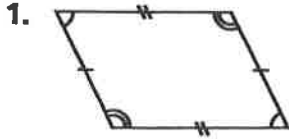
**Polygons**

Day # 33

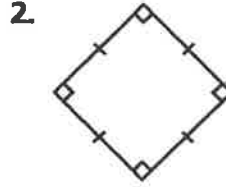


**COMMON CORE STANDARD—5.G.B.3**  
Classify two-dimensional figures into categories based on their properties.

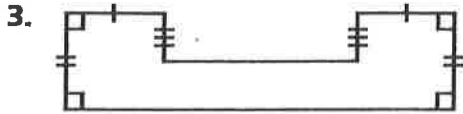
Name each polygon. Then tell whether it is a **regular polygon** or not a **regular polygon**.



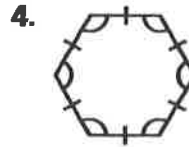
4 sides, 4 vertices, 4 angles means it is a  
quadrilateral. The sides are  
not all congruent, so it is not regular.



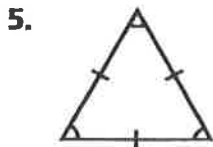
\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

**Problem Solving**



7. Sketch nine points. Then, connect the points to form a closed plane figure. What kind of polygon did you draw?

\_\_\_\_\_

8. Sketch seven points. Then, connect the points to form a closed plane figure. What kind of polygon did you draw?

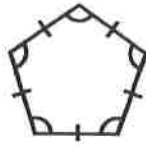
\_\_\_\_\_

9. Use grid paper to draw one regular hexagon and one hexagon that is not regular. Explain the difference.

\_\_\_\_\_

## Lesson Check (5.G.B.3)

1. Name the polygon. Write whether it is regular or not regular.



---

2. Name the polygon. Write whether it is regular or not regular.



---

## Spiral Review (5.OA.A.2, 5.NBT.B.7, 5.MD.A.1)

3. Ann needs 42 feet of fabric to make a small quilt. How many yards of fabric should she buy?

---

4. Todd begins piano practice at 4:15 P.M. and ends at 5:50 P.M. How long does he practice?

---

5. Jenna has 30 barrettes. She is organizing her barrettes into 6 boxes. She puts the same number of barrettes in each box. Write an expression that you can use to find the number of barrettes in each box.

---

6. Melody had \$45. She spent \$32.75 on a blouse. Then her mother gave her \$15.50. How much money does Melody have now?

---



5<sup>th</sup> Grade

NTI Day 34

Name:

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School:

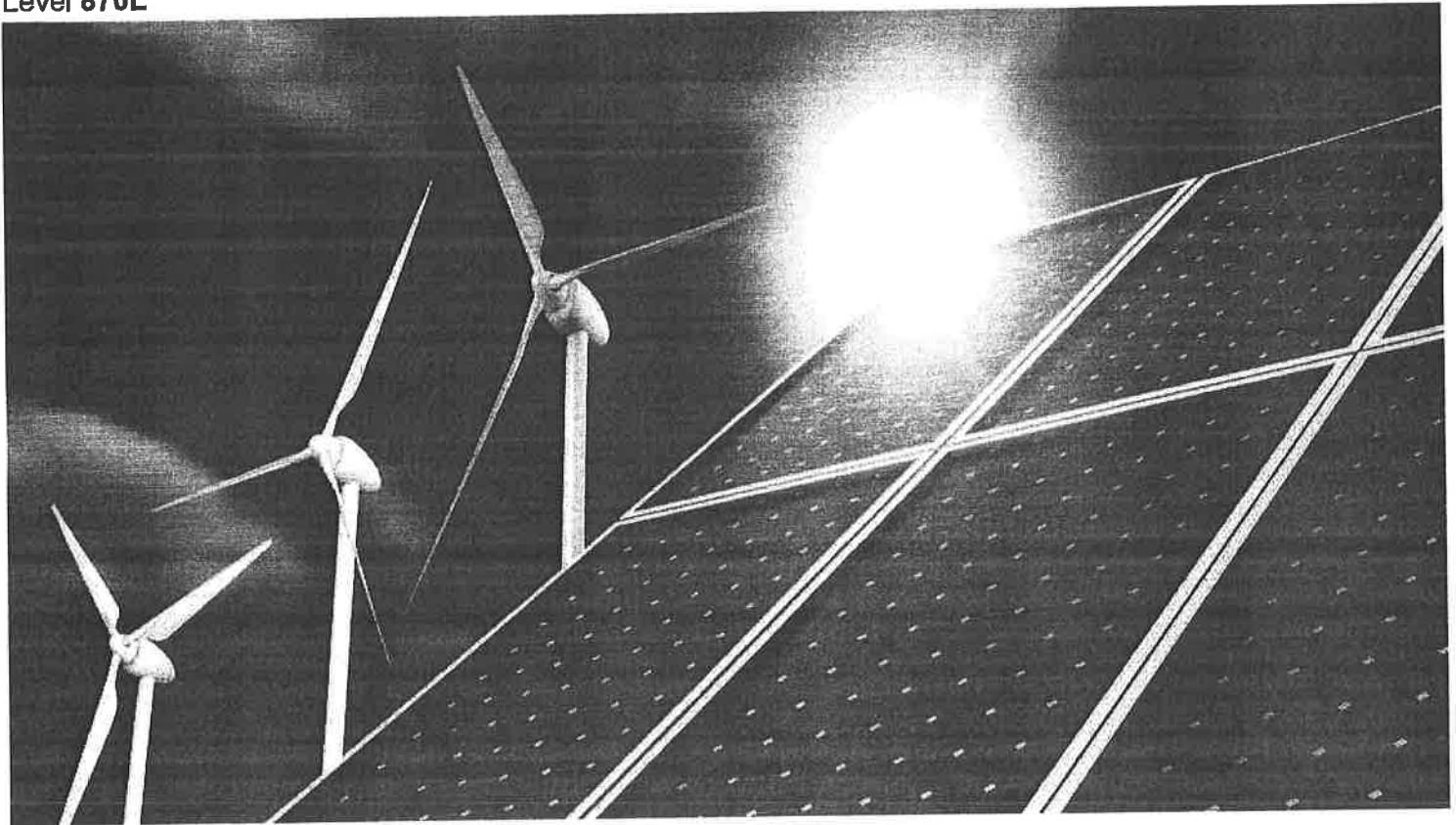
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# Types of renewable energy

By National Geographic Society, adapted by Newsela staff on 02.12.20

Word Count **987**

Level **870L**



Wind turbines (left) and solar panels (right) create electricity. Photo by: Christoph Burgstedt/Science Source

An energy source that does not get used up is called renewable energy. The wind, the sun and heat from the Earth are sources of renewable energy.

## **Solar Energy**

Solar energy comes from the sun.

Active solar energy uses special technology to capture the sun's rays. The two types are photovoltaic cells (PV cells or solar cells) and mirrors. They focus sunlight in a specific spot to generate electricity. PV cells last for a long time and are efficient.

Passive solar energy does not use equipment. Energy comes from the way sunlight naturally changes throughout the day. One example is building a house such that it faces the sun more often and thus gets more heat from it.

There are reasons why solar power cannot be used as the only power source in a community. It can be expensive to install PV cells or build a building using passive solar technology.



**NATIONAL  
GEOGRAPHIC**

Also, sunshine is hard to predict. The sun can get blocked by clouds. Different places get different amounts of sunlight based on the location, time of year and time of day.

## **Wind Energy**

Throughout history, people have been harnessing the wind's energy. Ancient Egyptians made boats powered by the wind more than 5,000 years ago. In 200 B.C., people used windmills to grind grain in the Middle East and pump water in China.

Today, we capture the wind's energy with wind turbines. These are large towers with two or three blades at the top. The wind turns the blades, and the blades turn a generator located inside the tower. This creates electricity.

Groups of wind turbines are known as wind farms. Wind farms can be found near farmland, in narrow mountain passes and even in the ocean. Wind turbines anchored in the ocean are called offshore wind farms.

Steady winds can provide cheap, reliable electricity. Turbines do not emit pollutants into the air. But wind speed changes constantly, depending on the time of day, weather and geographic location. They are also dangerous for bats and birds, as they can crash into them.

## **Geothermal Energy**

Geothermal energy makes use of the extreme heat of the earth's core. The center of the Earth is extremely hot. It's thought to be over 6,000 degrees Celsius (about 10,800 degrees Fahrenheit). The heat is constantly moving toward the surface.

We can access underground geothermal heat in different ways. One way is to use geothermal heat pumps. A pipe of water loops between a building and holes dug deep underground. Geothermal energy warms water underground. Then the warmth moves aboveground to the building. Geothermal heat pumps can be used to heat houses, sidewalks and even parking lots.

Another way to use geothermal energy is with steam. In some areas of the world, there is underground steam that naturally rises to the surface. The steam can be piped straight to a power plant. However, in other parts of the world, the ground is dry. Water must be injected underground to create steam. When the steam comes to the surface, it is used to turn a generator and create electricity.

In Iceland, there are large reservoirs of underground water. Almost 90 percent of people in Iceland use geothermal as an energy source. They heat their homes and businesses.

## **Biomass Energy**

Biomass is any material that comes from plants, animals or microorganisms that were recently living. Plants create energy from the sun through a process called photosynthesis. This energy is stored in the plants even after they die.

Trees, branches, scraps of bark and recycled paper are common sources of biomass energy. Manure, garbage and crops such as corn, soy and sugar cane can also be used as biomass feedstocks.



We get energy from biomass by burning it. Wood chips, manure and garbage are dried out and compressed into squares called briquettes. These briquettes are so dry that they do not absorb water. They can be stored and burned to create heat or generate electricity.

Biomass can also be converted into biofuel to power cars and trucks. Biofuels are mixed with regular gasoline and can be used to power cars and trucks. Biofuels release less harmful pollutants than pure gasoline.

Biomass can be stored and used when it is needed. However, growing crops for biofuels requires large amounts of land and pesticides.

### **Hydroelectric Energy**

Hydroelectric energy is made by flowing water. Most hydroelectric power plants are located on large dams, which control the flow of a river.

Dams block the river and create an artificial lake, or reservoir. A controlled amount of water is forced through tunnels in the dam. As water flows through the tunnels, it turns huge turbines and generates electricity.

Hydroelectric energy is inexpensive and reliable. Water is constantly flowing, so the dam does not depend on the weather and time of day.

However, hydroelectric power plants are damaging to the environment. When a river is dammed, it creates a large lake behind the dam. This lake drowns the original river habitat and sometimes drowns entire towns. Silt, or dirt from a riverbed, can build up behind the dam. It can damage the dam, shortening its life span.

### **Other Renewable Energy Sources**

Scientists and engineers are working to harness other renewable energy sources. Three of the most promising are tidal energy, wave energy and algal (or algae) fuel.

Tidal energy uses the power of ocean tides to generate electricity. Moving tides turn the blades of a turbine. Other projects use reservoirs that are filled at high tide and slowly release the water and turn turbines at low tide.

Wave energy harnesses waves from the ocean, lakes or rivers. Some use the same kind of equipment as for tidal energy.

Algal fuel is a type of biomass energy that uses the unique chemicals in seaweed to create a clean and renewable biofuel. Algal fuel does not need the acres of cropland that other biofuel feedstocks do.

## Quiz

1

Read the summary of the main ideas of the article below.

*Renewable energy comes from the wind, sun and Earth, and does not get used up. There are many ways to collect this energy, and each has pros and cons regarding reliability and effects on the environment.*

Which answer choice would BEST complete the summary?

- (A) Active energy is different from passive energy in the type of technology it uses to make electricity.
- (B) Capturing renewable energy from the sun and the wind depends on the type of weather happening.
- (C) Energy sources such as biofuels can be used to power cars and trucks with fewer harmful pollutants.
- (D) Scientists are working to find ways to use other sources of renewable energy that could work better.

2

Read the paragraph from the section "Hydroelectric Energy."

*However, hydroelectric power plants are damaging to the environment. When a river is dammed, it creates a large lake behind the dam. This lake drowns the original river habitat and sometimes drowns entire towns. Silt, or dirt from a riverbed, can build up behind the dam. It can damage the dam, shortening its life span.*

How does this paragraph support the MAIN idea of the article?

- (A) It describes how some towns have fought to keep dams from being built nearby.
- (B) It describes the differences between energy that comes from water and energy from the sun.
- (C) It explains some of the problems that can be created by a type of renewable energy.
- (D) It explains that built-up silt can be heavy enough to damage or break a dam.

3

The section "Geothermal Energy" is mostly organized using a compare and contrast structure.

Why did the author choose to use this structure?

- (A) to outline solutions for power plants located in places where the ground is dry
- (B) to show how the extreme heat of the Earth's core affects the steam at the surface
- (C) to describe the different ways to access geothermal heat in order to create energy
- (D) to explain the different reactions that people in Iceland have had to geothermal energy

4

If this article were organized using chronological order, which section would come FIRST?

- (A) "Solar Energy"
- (B) "Wind Energy"
- (C) "Biomass Energy"
- (D) "Other Renewable Energy Sources"



## Illuminated Manuscripts

An **illuminated** manuscript is a manuscript that is decorated. For example, an illuminated manuscript might contain decorative initials, colorful and ornate margins, or miniature illustrations. Technically, a manuscript is only “illuminated” if it is decorated with gold or silver, but in modern scholarship the word “illuminated” is now used to refer to any manuscript from Western traditions that is decorated or illustrated.

The earliest known examples of illuminated manuscripts date back to **approximately** 500 AD. They were created in Italy and the Eastern Roman Empire. They are significant not only because of their beauty, but because they show that Western populations were literate prior to the rise of non-literate ruling classes. If these manuscripts had not been carefully preserved partly because of their value and their beauty, evidence of **literacy** during that time frame would have been lost.

Look up each of the bold word in the dictionary. Write their definitions on the line.

1. **illuminated** \_\_\_\_\_
2. **approximately** \_\_\_\_\_
3. **literacy** \_\_\_\_\_

4. A modern synonym for “illuminated” would be:

- A. colorful      B. shiny      C. illustrated      D. vivid

5. Which of the following dates would you describe as “approximately” 500 AD?

- A. 400 - 600 AD      B. 600 - 700 AD      C. 300 - 400 AD      D. 300 - 700 AD

6. If you are “literate”, that means that you can:

- A. read      B. speak      C. write      D. read and write

5th gr

Common Core State Standards  
5.G.3, 5.G.4

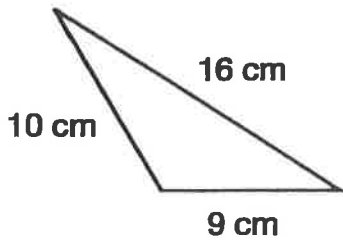
# Triangles

Day # 34

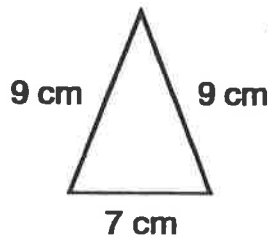


## Getting the Idea

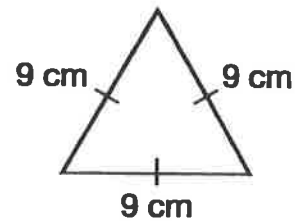
You can classify and sort triangles into different groups.  
You can classify a triangle by the number of equal sides.



**scalene triangle**  
No sides are equal.

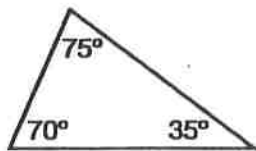


**isosceles triangle**  
At least 2 sides are equal.

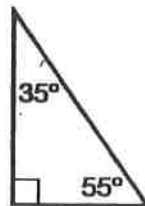


**equilateral triangle**  
All sides are equal.

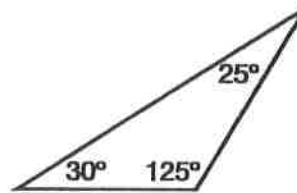
You can classify a triangle by the measure of its greatest angle.



**acute triangle**  
All angles are acute.



**right triangle**  
One angle is a right angle.



**obtuse triangle**  
One angle is an obtuse angle.

Name \_\_\_\_\_

# Triangles

**Essential Question** How can you classify triangles?



Measurement and Data  
5.G.B.3, 5.G.B.4

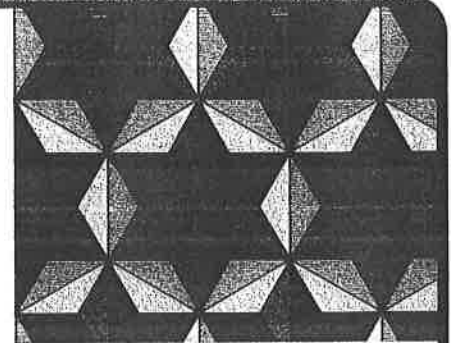
MATHEMATICAL PRACTICES  
MP2, MP6, MP7, MP8

5<sup>th</sup> gr.

Day #34

## Unlock the Problem Real World

If you look closely at Epcot Center's Spaceship Earth building in Orlando, Florida, you may see a pattern of triangles. The triangle outlined in the pattern at the right has 3 congruent sides and 3 acute angles. What type of triangle is outlined?

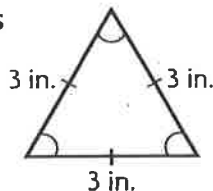


Complete the sentence that describes each type of triangle.

**Classify triangles by the lengths of their sides.**

An equilateral triangle has

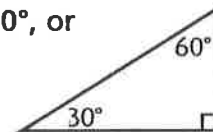
3 congruent sides.



**Classify triangles by the measures of their angles.**

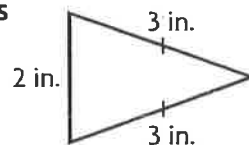
A right triangle has one 90°, or

right angle.



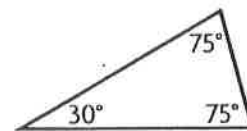
An isosceles triangle has

2 congruent sides.



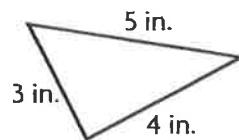
An acute triangle has 3

acute angles.



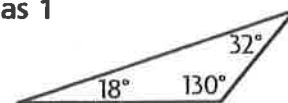
A scalene triangle has

0 congruent sides.



An obtuse triangle has 1

obtuse angle.



The type of triangle outlined in the pattern can be classified by the length of its sides as an equilateral triangle.

The triangle can also be classified by the measures of its angles as an acute triangle.



MATHEMATICAL PRACTICES **6**

Is an equilateral triangle also a regular polygon? Explain.

# Activity



Classify triangle *ABC* by the lengths of its sides and by the measures of its angles.

**Materials** ■ centimeter ruler ■ protractor

**STEP 1** Measure the sides of the triangle using a centimeter ruler. Label each side with its length. Classify the triangle by the lengths of its sides.

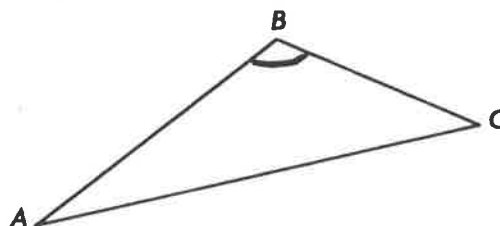
**STEP 2** Measure the angles of the triangle using a protractor. Label each angle with its measure. Classify the triangle by the measures of its angles.

- What type of triangle has 3 sides of different lengths?

Scalene

- What is an angle called that is greater than 90° and less than 180°?

obtuse



Triangle *ABC* is a scalene obtuse triangle.

**Try This!** Draw the type of triangle described by the lengths of its sides and by the measures of its angles.

		Scalene	Isosceles
Triangle by Angle Measure	Acute	<p>Think: I need to draw a triangle that is acute and scalene.</p>	
	Obtuse		

**Math Talk**

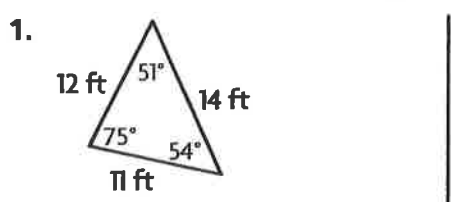
**MATHEMATICAL PRACTICES 2**

**Reason Abstractly** Can you draw a triangle that is right equilateral? Explain.

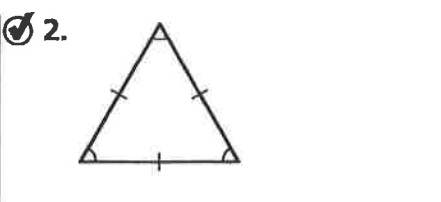
Name \_\_\_\_\_

# Share and Show

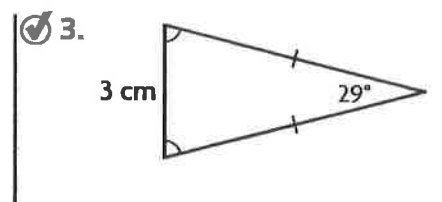
Classify each triangle. Write *isosceles*, *scalene*, or *equilateral*. Then write *acute*, *obtuse*, or *right*.



Scalene acute  
no sides same all angles less than 90°



equal sides acute angles



2 equal sides all angles less than 90°

**Math Talk**

**MATHEMATICAL PRACTICES 8**

**Draw Conclusions** Can you tell that a triangle is obtuse, right, or acute without measuring the angles? Explain.

## On Your Own

A triangle has sides with the lengths and angle measures given. Classify each triangle. Write *isosceles*, *scalene*, or *equilateral*. Then write *acute*, *obtuse*, or *right*.

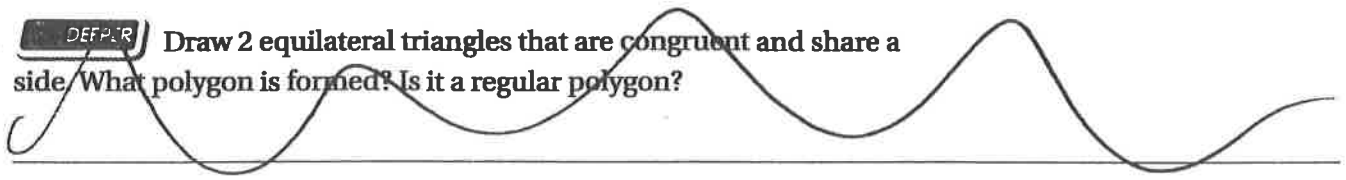
4. sides: 3.5 cm, 6.2 cm, 3.5 cm  
angles: 27°, 126°, 27°

5. sides: 2 in., 5 in., 3.8 in.  
angles: 43°, 116°, 21°

6. Circle the figure that does not belong. Explain.



7. **DEEPER** Draw 2 equilateral triangles that are congruent and share a side. What polygon is formed? Is it a regular polygon?



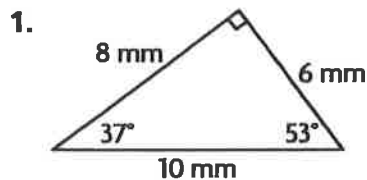
Name \_\_\_\_\_

**Triangles**

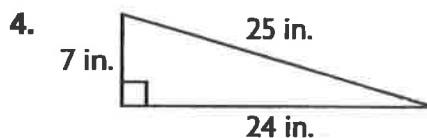
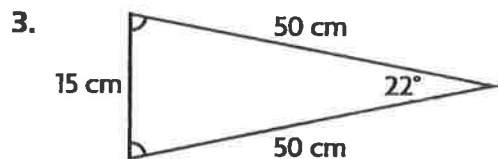
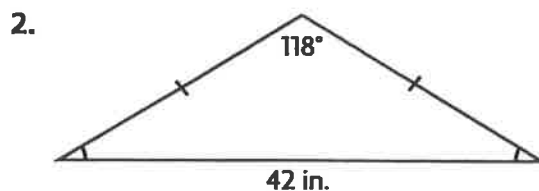


COMMON CORE STANDARD—5.G.B.3, 5.G.B.4 Classify two-dimensional figures into categories based on their properties.

Classify each triangle. Write *isosceles*, *scalene*, or *equilateral*. Then write *acute*, *obtuse*, or *right*.



None of the side measures are equal. So, it is scalene. There is a right angle, so it is a right triangle.



A triangle has sides with the lengths and angle measures given. Classify each triangle. Write *scalene*, *isosceles*, or *equilateral*. Then write *acute*, *obtuse*, or *right*.

5. sides: 44 mm, 28 mm, 24 mm  
angles: 110°, 40°, 30°

6. sides: 23 mm, 20 mm, 13 mm  
angles: 62°, 72°, 46°

**Problem Solving**

7. Mary says the pen for her horse is an acute right triangle. Is this possible? **Explain.**

8. Karen says every equilateral triangle is acute. Is this true? **Explain.**

9. **WRITE** *Math* Draw three triangles: one equilateral, one isosceles, and one scalene. Label each and explain how you classified each triangle.

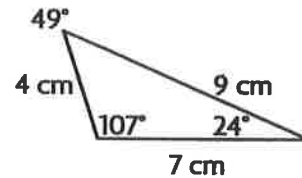


### Lesson Check (5.G.B.3, 5.G.B.4)

1. If two of a triangle's angles measure  $42^\circ$  and  $48^\circ$ , how would you classify that triangle? Write *acute*, *obtuse*, or *right*.

---

2. What is the classification of the following triangle? Write *scalene*, *isosceles*, or *right*.



---

### Spiral Review (5.MD.A.1, 5.G.B.3)

3. How many tons are equal to 40,000 pounds?

---

4. Choose a symbol to make the following statement true. Write  $>$ ,  $<$ , or  $=$ .

6 kilometers  600 centimeters

---

5. What polygon is shown?



---

6. Name the polygon. Write whether it is regular or not regular.



---

5<sup>th</sup> Grade

NTI Day 35

Name:

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School:

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# Play it safe: What kids should know about the coronavirus outbreak

By Jason Bittel, Washington Post on 03.25.20

Word Count **977**

Level **MAX**

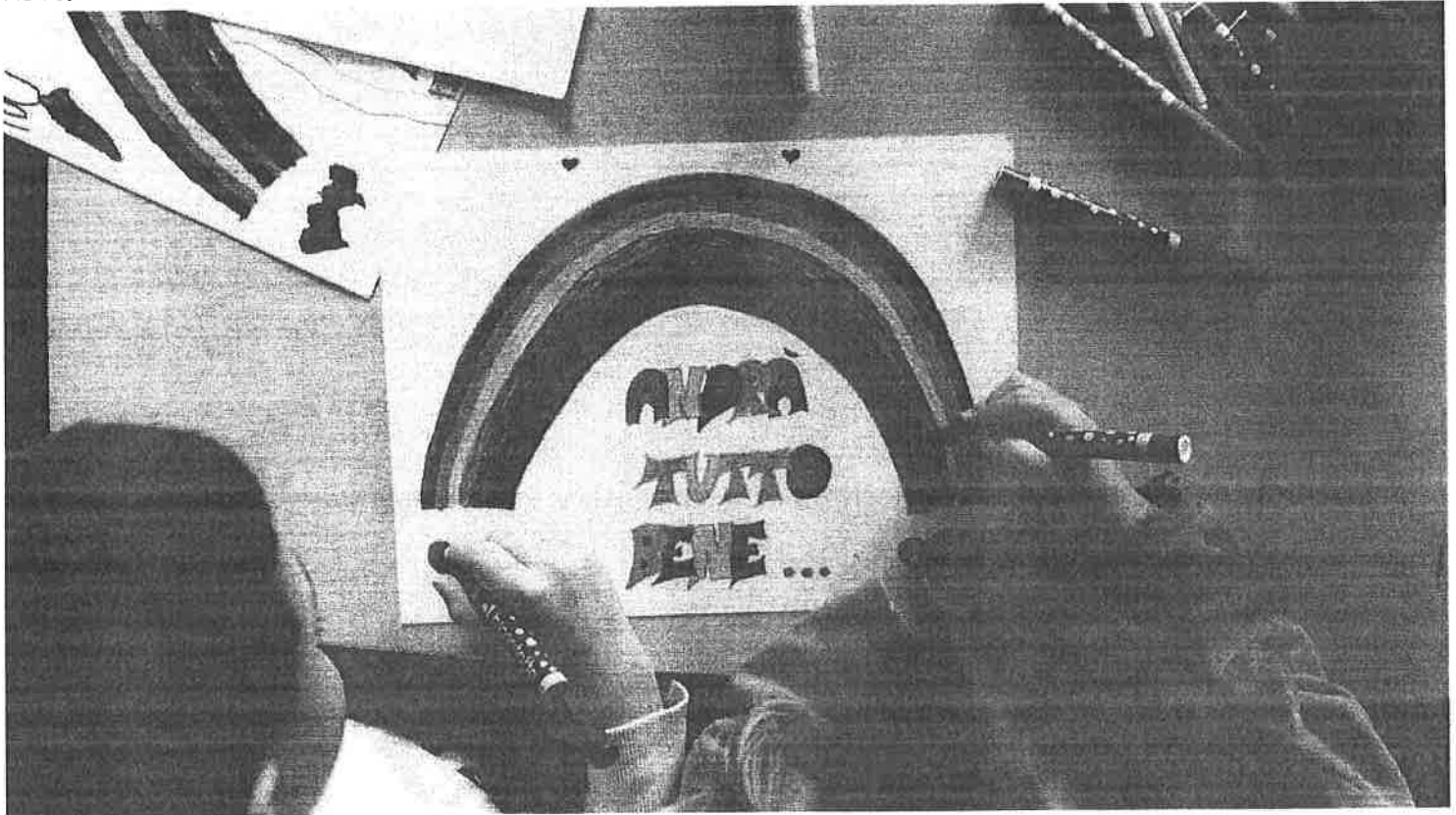


Image 1. Children draw a rainbow and the slogan of hope being shared in Italy, "Andrà tutto bene" (Everything will be alright), during quarantine measures amid the novel coronavirus COVID-19 pandemic on March 13, 2020, in Milan, Italy. Photo: Pietro D'Aprano/Getty Images

With schools closing across the nation in response to coronavirus concerns, many students may be jumping for joy. Others are worried, scared or confused. But as the American essayist Ralph Waldo Emerson wrote, "Knowledge is the antidote to fear."

With that in mind, let's answer a few common questions about coronavirus. Let's start with its name.

## **Everybody keeps talking about "coronavirus" and "covid-19." Which is it?**

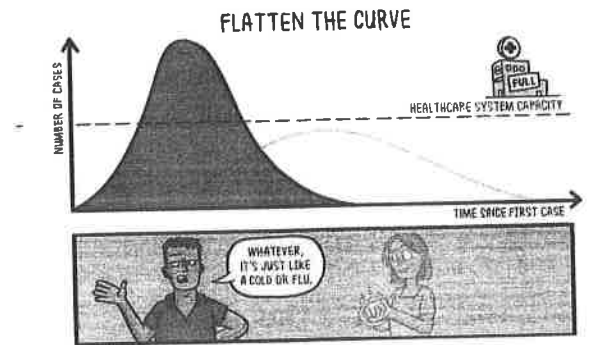
Technically, either of these terms could be correct, depending on how they are used. The actual virus that appeared in China at the end of 2019 and has since hopped across the world is called "SARS-CoV-2." This is short for "Severe Acute Respiratory Syndrome" and "coronavirus." Once the virus gets into a person, it can cause an illness known as "Coronavirus Disease 2019," or covid-19. Also, you might hear it referred to as a "novel coronavirus." This means that scientists already

knew about other coronaviruses, such as the one that caused an outbreak of SARS in Asia in 2003, but that this one is new.

### How does covid-19 affect people?

The most common symptoms of covid-19 include fever, cough and/or shortness of breath. A person might develop one or more of these symptoms in as few as two days after being exposed to the virus. But they may also not feel sick for up to two weeks after contact.

Scientists say most people who get the virus will be able to fight it as they might a bad case of the flu. However, some people will have a harder time than others. Elderly people seem to be especially vulnerable. So are those with other conditions such as heart disease, lung disease or diabetes. Some people who have the virus won't even realize it but in the worst cases, covid-19 can result in death. Fortunately, death is extremely unlikely to happen in infected children and teenagers.



### Can pets get covid-19?

So far, one dog in Hong Kong has tested positive for the coronavirus. However, it isn't showing any symptoms. So it's unclear whether the virus can have a negative effect on pets. According to the World Health Organization, there is no evidence yet that dog owners can catch the virus from their pets. Of course, if you keep your animals inside and avoid walking them in public places, they will be even more unlikely to come into contact with the virus.

### Why are schools, stores and restaurants closing?

Because SARS-CoV-2 is new, our immune systems haven't had a chance to learn how to fight it off. This allows the virus to move around quickly, infecting many new people for each group it comes into contact with. This makes schools, stores, restaurants and other public gatherings the perfect places for the virus to spread.

The biggest concern now is that if enough people get sick at the same time, hospitals might not be able to keep up with the demand for treatment. This concern comes from what happened in Italy. This is a problem for those who need treatment because of covid-19. This is also a problem for anyone else who might need medical services for everything from a twisted ankle or a cut requiring stitches to more serious conditions.

### Can this coronavirus be stopped?

There are many scientists around the world working to develop a vaccine. This could be used to halt the spread of this coronavirus for good. However, it will take time to develop that vaccine. There are measures communities and families can adopt in the meantime to help slow the virus' spread.

### Why do we have to wash our hands so often?

First, washing your hands after going to the restroom or before handling food is a great practice in general. It can help you avoid catching all sorts of nasty illnesses. But hand-washing has become even more important as this coronavirus spreads. This is the easiest way to ensure you're washing your hands well enough: Use warm or cold water and soap and keep scrubbing every inch of your fingers, thumbs, palms and wrists. Scrub for the time it takes to sing "Happy Birthday to You" twice. The Centers for Disease Control and Prevention (CDC) has more tips at [cdc.gov/handwashing](https://www.cdc.gov/handwashing). (Also, remember to cover your cough with a tissue or at least your inner elbow.)

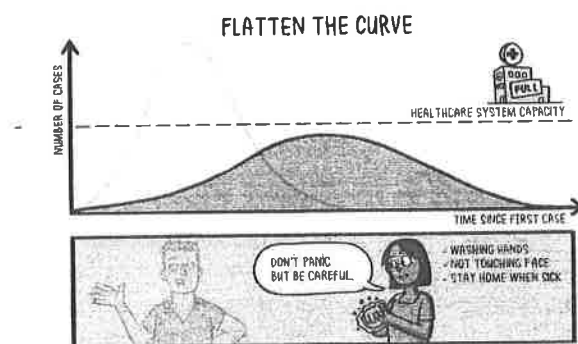
### What is "social distancing"?

Your parents might not want you to play basketball with your neighbors. Or they might not want you to go to a party that was scheduled for next weekend. This is because of something called "social distancing." And while it seems like a bummer, experts say it's another way everyone can work together to limit the impact of this coronavirus.

The idea behind social distancing is simple. The fewer people we have close contact with each day, the fewer opportunities the virus has to spread. (The CDC says "close" is six feet or less.) And that means not only will you and your family have better chances of avoiding covid-19, but so will your grandparents, your Scout group and the person you sit next to in a bus. Any of these people might be at a higher risk to have a more serious reaction from the virus.

### How long will this last?

Unfortunately, no one can answer that question yet. The CDC recommends that large events be canceled or postponed for at least the next eight weeks. Your parents, teachers and KidsPost will be coming up with creative ways to pass the time.



# Quadrilaterals

5<sup>th</sup> gr.

Common Core State Standards:  
5.G.3, 5.G.4

Keep for  
future use

Day # 35



## Getting the Idea

A quadrilateral is a plane figure with 4 sides and 4 angles. There are many different kinds of quadrilaterals, some of which are shown in the chart below. You can classify and sort quadrilaterals into different groups.

Quadrilateral	Figure	Definition
parallelogram		A parallelogram is a quadrilateral in which both pairs of opposite sides are parallel. Opposite sides of a parallelogram have the same length, and opposite angles have the same measure.
rhombus		A rhombus is a parallelogram with four sides that have the same length.
rectangle		A rectangle is a parallelogram with four right angles.
square		A square is a rectangle with four sides that have the same length.
trapezoid		A trapezoid is a quadrilateral with exactly one pair of parallel sides.
kite		A kite is a quadrilateral with two different pairs of connected sides that have the same length.

Duplicating any part of this book is prohibited by law.

Name \_\_\_\_\_

# Quadrilaterals

**Essential Question** How can you classify and compare quadrilaterals?



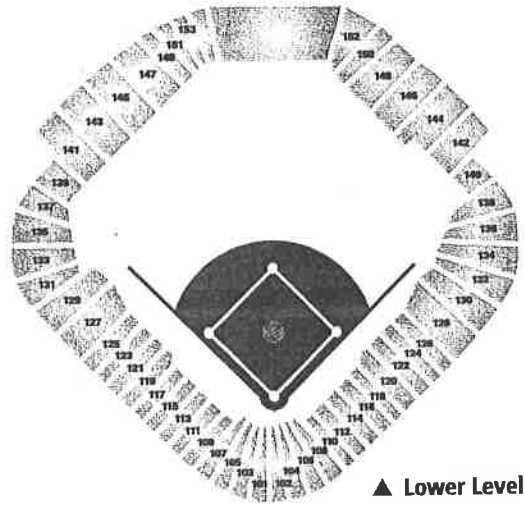
Measurement and Data — 5<sup>th</sup> gr.  
5.G.B.3, 5.G.B.4

**MATHEMATICAL PRACTICES**  
MP3, MP7

Day # 35

## Unlock the Problem Real World

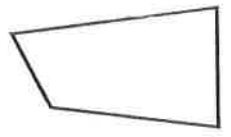
A seating chart for a baseball field has many four-sided figures, or **quadrilaterals**. What types of quadrilaterals can you find in the seating chart?



▲ Lower Level

Complete the sentence that describes each type of quadrilateral.

A general quadrilateral has 4 sides and 4 angles.



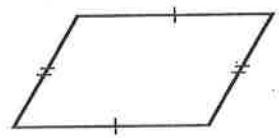
A trapezoid is a quadrilateral with at least

1 pair of parallel sides.



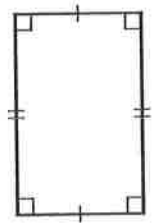
A **parallelogram** is a special trapezoid with

opposite sides that are congruent and parallel.



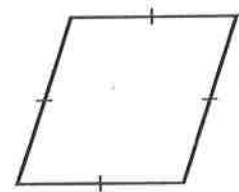
A **rectangle** is a special

parallelogram with 4 right angles and 2 pairs of congruent sides.



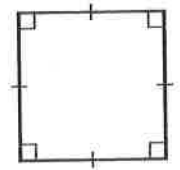
A **rhombus** is a special

parallelogram with 4 congruent sides.



A **square** is a special

parallelogram with 4 congruent sides and 4 right angles.



So, the types of quadrilaterals you can find in the seating chart of the field are

\_\_\_\_\_



**MATHEMATICAL PRACTICES 7**

**Identify Relationships** How are trapezoids and parallelograms different?

# Share and Show

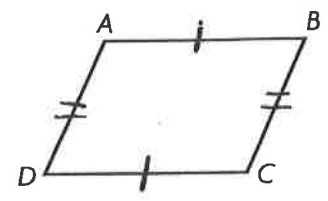
1. Use quadrilateral  $ABCD$  to answer each question. Complete the sentence.

a. Measure the sides. Are any of the sides congruent? yes  
Mark any congruent sides.

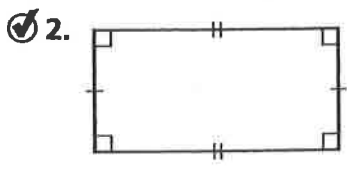
b. How many right angles, if any, does the quadrilateral have? 0

c. How many pairs of parallel sides, if any, does the quadrilateral have? 2

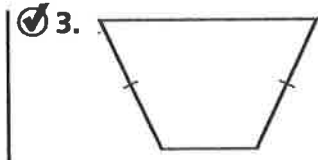
So, quadrilateral  $ABCD$  is a parallelogram and a trapezoid.



Classify the quadrilateral in as many ways as possible. Write quadrilateral, trapezoid, parallelogram, rectangle, rhombus, or square.



rectangle, parallelogram, trapezoid, quadrilateral



trapezoid, quadrilateral

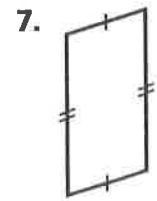
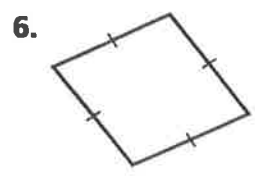
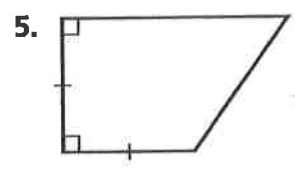
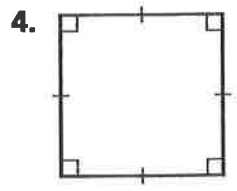


**MATHEMATICAL PRACTICES 3**

**Make Arguments** Can a trapezoid have more than one pair of parallel sides that have the same length? Explain your answer.

## On Your Own

Classify the quadrilateral in as many ways as possible. Write quadrilateral, trapezoid, parallelogram, rectangle, rhombus, or square.





## Problem Solving • Applications

8. A quadrilateral has exactly 2 congruent sides. Which quadrilateral types could it be? Which quadrilaterals could it not be?

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9. **THINK SMARTER** A quadrilateral has exactly 3 congruent sides. Davis claims that the figure must be a rectangle. Why is his claim incorrect? Use a diagram to explain your answer.

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10. **MATHEMATICAL PRACTICE 3** **Make Arguments** The opposite corners of a quadrilateral are right angles. The quadrilateral is not a rhombus. What kind of quadrilateral is this figure? Explain how you know.

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11. **GO DEEPER** I am a figure with four sides. I can be placed in the following categories: quadrilateral, trapezoid, parallelogram, rectangle, rhombus, and square. Draw me. Explain why I fit into each category.

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12. **THINK SMARTER +** For 12a–12c, write the name of one quadrilateral from the tiles to complete a true statement. Use each quadrilateral only once.

12a. A \_\_\_\_\_ is sometimes a square.

12b. A \_\_\_\_\_ is always a rectangle.

12c. A parallelogram is always a \_\_\_\_\_.

Personal Math Trainer

square

trapezoid

rhombus



Name \_\_\_\_\_

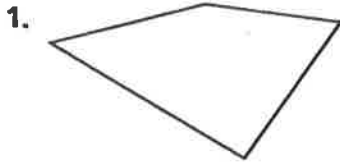
**Quadrilaterals**



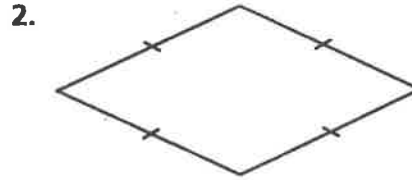
**COMMON CORE STANDARD—5.G.B.4**  
Classify two-dimensional figures into categories based on their properties.

Classify the quadrilateral in as many ways as possible.

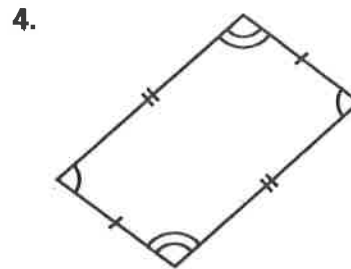
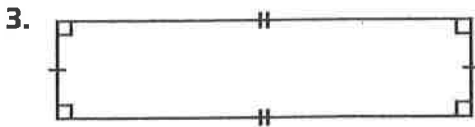
Write *quadrilateral, trapezoid, parallelogram, rectangle, rhombus, or square.*



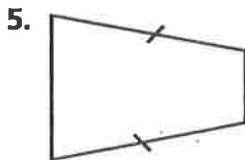
It has 4 sides, so it is a quadrilateral.  
None of the sides are parallel, so there is  
no other classification.



\_\_\_\_\_



\_\_\_\_\_



\_\_\_\_\_

**Problem Solving**



7. Kevin claims he can draw a trapezoid with three right angles. Is this possible? **Explain.**

8. "If a figure is a square, then it is a regular quadrilateral." Is this true or false? **Explain.**

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. **WRITE Math** All rectangles are parallelograms. Are all parallelograms rectangles? **Explain.**

\_\_\_\_\_

## Lesson Check (5.G.B.4)

1. Complete the following statement. Write *sometimes*, *always*, or *never*.
2. Complete the following statement. Write *sometimes*, *always*, or *never*.

A trapezoid \_\_\_\_\_ has exactly one pair of parallel sides.

A rhombus \_\_\_\_\_ has four congruent angles.

## Spiral Review (5.NF.B.3, 5.MD.A.1, 5.G.B.3, 5.G.B.4)

3. How many kilograms are equal to 5,000 grams?
4. The sides of a triangle measure 6 inches, 8 inches, and 10 inches. The triangle has one  $90^\circ$  angle. What type of triangle is it?

- \_\_\_\_\_
5. A warehouse has 355 books to ship. Each shipping carton holds 14 books. How many cartons does the warehouse need to ship all of the books?
- \_\_\_\_\_

6. How many vertices does a heptagon have?
- \_\_\_\_\_



5<sup>th</sup> Grade

NTI Day 36

Name:

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School:

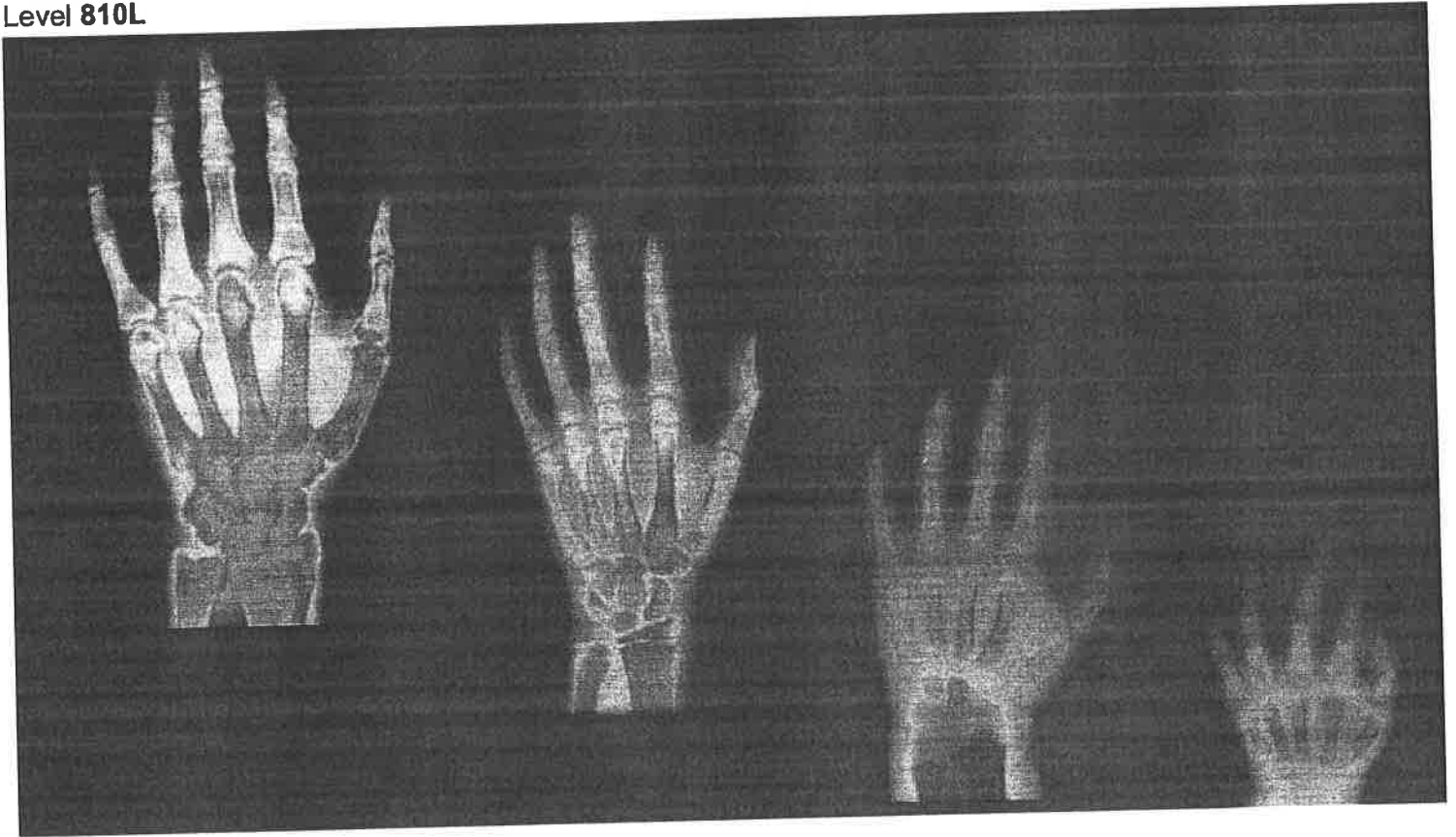
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# Your body's growth is largely determined by your DNA

By Cricket Media, adapted by Newsela staff on 04.05.20

Word Count **657**

Level **810L**



Colored X-ray showing the bone growth of the human hand at the ages of (from right) 1 year, 3 years, 13 years and 20 years. Photo: SPL/Science Source

The tiny egg cell you grew from was smaller than the head of a pin. By the time you are fully grown, your body will be up to 20,000 times larger. That's a lot of growing.

## Ready For Your 2nd Growth Spurt?

In all animals, humans included, growth happens as cells swell, divide and connect. Even after you reach your full height, new cells are always growing to replace old ones. Old cells are lost or recycled by the thousands every day.

Growth happens all over your body. Different body parts grow at different speeds. By the time you're 10 years old, your head is almost grown-up size. The rest of you may take another 10 years to catch up! Inside your body, your heart, lungs and other organs all grow at their own speeds. Your height depends on how your bones grow.

As your spine and the bones in your legs and arms get longer, you get taller. However, their stretching and growing longer is far from steady. It speeds up during two super-speedy growth spurts. The first is when you are a baby. In your first year of life, you grew about 25 centimeters (10 inches)! After that, your growth slowed to about 3 to 8 centimeters (1 to 3 inches) each year. The second growth spurt is when you are a teenager. During puberty, you may shoot up by 10 centimeters (4 inches) a year or more. Most of the time, girls get their growth spurts earlier. Girls are taller than boys for a couple of years at school.

### **Hormone Flows Vary**

At some point, your body has to stop getting bigger. Like other animals, human beings have evolved to be just the right size. We keep growing until we're large enough to survive alone and unprotected. If we're too small, we can't defend ourselves. If we grow too large, it puts dangerous pressure on our bones and the places they connect, called joints. It also puts dangerous stress on our hearts.

Exactly how big you will get is coded into your DNA. Your DNA is like very long instructions for making you. There is a complete copy inside every cell. Cells follow different parts of the DNA instructions based on where the cell is in your body and chemical signals from other cells. DNA tells each cell what kind of cell to become. It tells each cell when to keep dividing.

Chemical messengers called hormones turn on much of your growth. Hormones are made in special glands. They flow through your bloodstream, carrying messages to cells. Your body makes different amounts of hormones at different stages of life. As a baby and during puberty, they flood your blood.

Once you've gone through puberty, you're fully developed. Your body makes fewer hormones, your cells get the message to stop dividing so quickly and you stop getting bigger. You've grown up!

### **You Get Your Parents' Hand-me-downs : Genes**

How tall you grow depends on the sections of DNA, called genes, you get from your mom and dad. Most children end up roughly as tall as their parents, or somewhere in between. Sometimes children grow taller than their parents, if their growth signals tell their bones to keep growing for a longer time. In rare cases, there are errors in the DNA. They can cause the body to make too little or too much growth hormone. Then the body may stop growing too soon, or keep growing for too long.

Your cells are working hard to grow to your proper height. To get there, your body also needs the right supplies. These are healthy foods, sleep, exercise and sunshine. Sunshine helps make vitamin D for strong bones. If you want to grow big and strong, don't bother stretching your legs every day, or sleeping upside down like a bat. Just eat right, go out and play and leave the rest to your DNA.

## Quiz

1 Read the following paragraph from the section "Ready For Your 2nd Growth Spurt?."

*As your spine and the bones in your legs and arms get longer, you get taller. However, their stretching and growing longer is far from steady. It speeds up during two super-speedy growth spurts. The first is when you are a baby. In your first year of life, you grew about 25 centimeters (10 inches)! After that, your growth slowed to about 3 to 8 centimeters (1 to 3 inches) each year. The second growth spurt is when you are a teenager. During puberty, you may shoot up by 10 centimeters (4 inches) a year or more. Most of the time, girls get their growth spurts earlier. Girls are taller than boys for a couple of years at school.*

Which of the following is an accurate explanation of what this paragraph means?

- (A) The bones of the arms and legs cause people to be tall.
- (B) People grow the fastest after they have reached puberty.
- (C) Girls are usually taller than boys because of hormones.
- (D) The body grows at different speeds throughout life.

2 Read the section "Hormone Flows Vary."

Select the sentence from the section that shows when growing stops.

- (A) At some point, your body has to stop getting bigger.
- (B) Exactly how big you will get is coded into your DNA.
- (C) Your body makes different amounts of hormones at different stages of life.
- (D) Once you've gone through puberty, you're fully developed.

3 Read the following paragraph from the article.

*How tall you grow depends on the sections of DNA, called genes, you get from your mom and dad. Most children end up roughly as tall as their parents, or somewhere in between. Sometimes children grow taller than their parents, if their growth signals tell their bones to keep growing for a longer time. In rare cases, there are errors in the DNA. They can cause the body to make too little or too much growth hormone. Then the body may stop growing too soon, or keep growing too long.*

Which statement summarizes the paragraph?

- (A) A person's DNA is mostly responsible for how tall a person gets.
- (B) A mistake in DNA can make a person grow too tall or be short.
- (C) DNA provides instructions for each cell in your body.
- (D) Children always have the same DNA as their parents.

4 Which sentence from the article supports the MAIN idea of the article?

- (A) By the time you're 10 years old, your head is almost grown-up size.
- (B) It speeds up during two super-speedy growth spurts.
- (C) It also puts dangerous stress on our hearts.
- (D) Sunshine helps make vitamin D for strong bones.

Do I look nonchalant to you?



# Describing People

**DIRECTIONS:** Use a dictionary to look up each bold word below. Write its definition on the line. Then find the sentence that illustrates the word. Write the word on the line next to the sentence.

- 1. **confident** \_\_\_\_\_
- 2. **available** \_\_\_\_\_
- 3. **feeble** \_\_\_\_\_
- 4. **gigantic** \_\_\_\_\_
- 5. **moral** \_\_\_\_\_
- 6. **nonchalant** \_\_\_\_\_
- 7. **petrified** \_\_\_\_\_

- 8. \_\_\_\_\_ Francine is so frightened that she can't move.
- 9. \_\_\_\_\_ Harry is sure of his abilities and not at all nervous.
- 10. \_\_\_\_\_ Jane is being very composed about all of this upheaval.
- 11. \_\_\_\_\_ George follows all the rules about how to treat people well.
- 12. \_\_\_\_\_ Darlene is not busy this weekend.
- 13. \_\_\_\_\_ Sarah has a zit so big she refuses to leave the house.
- 14. \_\_\_\_\_ Tim is still feeling very weak after his accident.



Name \_\_\_\_\_

# Three-Dimensional Figures

**Essential Question** How can you identify, describe, and classify three-dimensional figures?



Measurement and Data—  
5.MD.C.3

5<sup>th</sup> gr.

**MATHEMATICAL PRACTICES**  
MP1, MP6, MP7, MP8

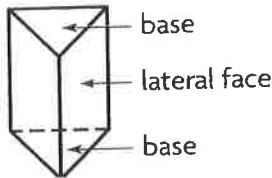
Day # 36

## Unlock the Problem

A solid figure has three dimensions: length, width, and height.  
**Polyhedrons**, such as prisms and pyramids, are three-dimensional figures with faces that are polygons.

A **prism** is a polyhedron that has two congruent polygons as **bases**.

A polyhedron's **lateral faces** are polygons that connect with the bases.  
The lateral faces of a prism are rectangles.



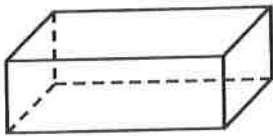
A prism's base shape is used to name the solid figure. The base shape of this prism is a triangle. The prism is a **triangular prism**.

### Math Idea

A two-dimensional figure has the dimensions length and width, which are used to find the figure's area.

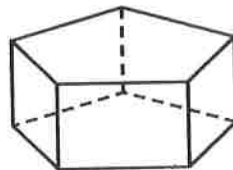
A three-dimensional figure, or solid, has three dimensions: length, width, and height. These dimensions are used to find the figure's volume, or the space it occupies.

**Identify the base shape of the prism. Use the terms in the box to correctly name the prism by its base shape.**



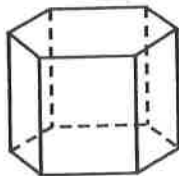
Base shape: rectangle  
Name the solid figure.

rectangular prism



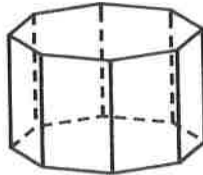
Base shape: pentagon  
Name the solid figure.

pentagonal prism



Base shape: hexagon  
Name the solid figure.

hexagonal prism



Base shape: octagon  
Name the solid figure.

octagonal prism

### Types of Prisms

- decagonal prism
- octagonal prism
- hexagonal prism
- pentagonal prism
- rectangular prism
- triangular prism

### Math Talk

**MATHEMATICAL PRACTICES** 3


**Use Repeated Reasoning**  
What shapes make up a decagonal prism, and how many are there? Explain.



**Analyze** What special prism has congruent squares for bases and lateral faces? \_\_\_\_\_

**Pyramid** A pyramid is a polyhedron with only one base. The lateral faces of a pyramid are triangles that meet at a common vertex.

Like a prism, a pyramid is named for the shape of its base.

 Identify the base shape of the pyramid. Use the terms in the box to correctly name the pyramid by its base shape.

- Types
- pentagonal
  - rectangular
  - square pyramid
  - triangular pyramid



Base shape: triangle

Name the solid figure.

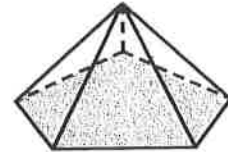
triangular prism



Base shape: rectangle or square

Name the solid figure.

rectangular pyramid or square pyramid

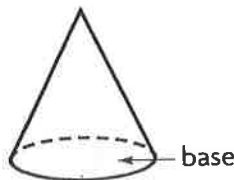


Base shape: pentagon

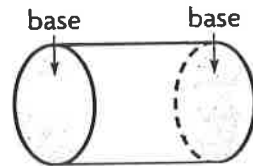
Name the solid figure.

pentagonal pyramid

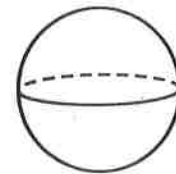
**Non-polyhedrons** Some three-dimensional figures have curved surfaces. These solid figures are *not* polyhedrons.



A **cone** has 1 circular base and 1 curved surface.



A **cylinder** has 2 congruent circular bases and 1 curved surface.



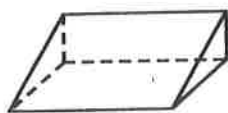
A **sphere** has no bases and 1 curved surface.

## Share and Show



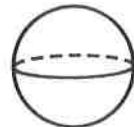
Classify the solid figure. Write *prism*, *pyramid*, *cone*, *cylinder*, or *sphere*.

1.



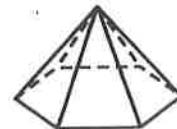
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2.



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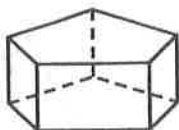
3.



\_\_\_\_\_

Name the solid figure.

4.



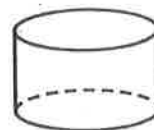
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5.



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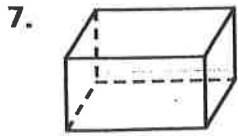
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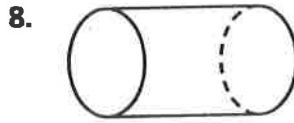
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## On Your Own

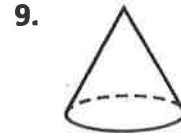
Classify the solid figure. Write *prism*, *pyramid*, *cone*, *cylinder*, or *sphere*.



\_\_\_\_\_

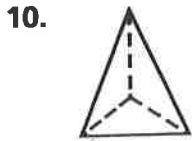


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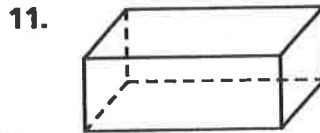


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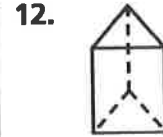
Name the solid figure.



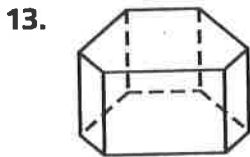
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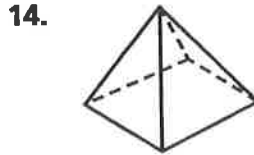
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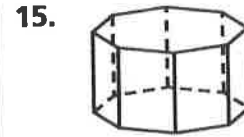
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\_\_\_\_\_

## Problem Solving • Applications

16. **MATHEMATICAL PRACTICE 6** Use Math Vocabulary Mario is making a sculpture out of stone. He starts by carving a base with five sides. He then carves five triangular lateral faces that all meet at a point at the top. What three-dimensional figure does Mario make?

\_\_\_\_\_

17. **THINKSMARTER** What is another name for a cube? Explain your reasoning.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



18. **DEEPER** Compare the characteristics of prisms and pyramids. Tell how they are alike and how they are different.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

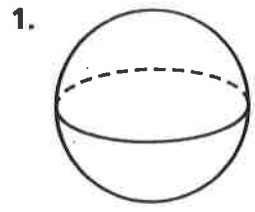
Name \_\_\_\_\_

**Three-Dimensional Figures**

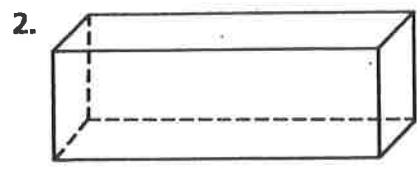


**COMMON CORE STANDARD—5.MD.C.3**  
Geometric measurements: understand concepts of volume and relate volume to multiplication and to addition.

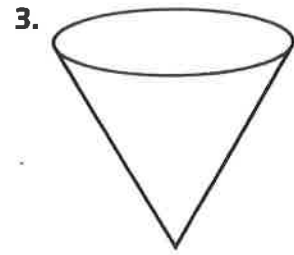
Classify the solid figure. Write *prism*, *pyramid*, *cone*, *cylinder*, or *sphere*.



There are no bases. There is 1 curved surface. It is a  
\_\_\_\_\_ sphere \_\_\_\_\_

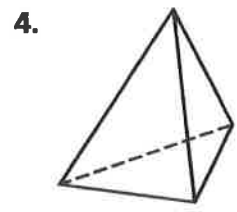


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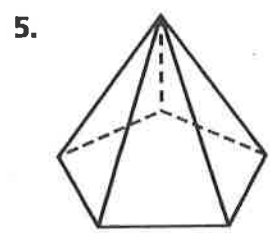


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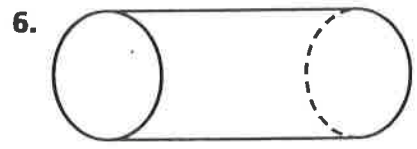
Name the solid figure.



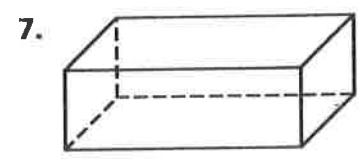
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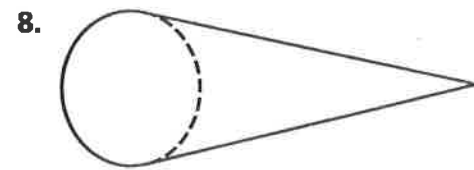
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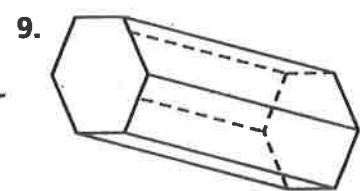
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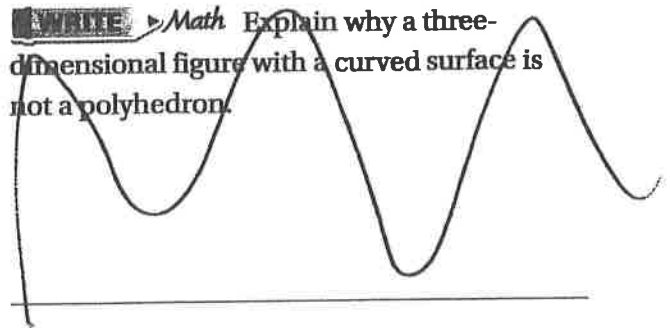
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**Problem Solving** **Real World**

10. Nanako said she drew a square pyramid and that all of the faces are triangles. Is this possible? Explain.

\_\_\_\_\_

11. **WRITE** *Math* Explain why a three-dimensional figure with a curved surface is not a polyhedron.



## Lesson Check (5.MD.C.3)

1. Luke made a model of a solid figure with 1 circular base and 1 curved surface. What solid figure did he make?
2. How many rectangular faces does a hexagonal pyramid have?

## Spiral Review (5.NF.A.1, 5.MD.A.1, 5.G.B.3, 5.G.B.4)

3. Laura walks  $\frac{3}{5}$  mile to school each day. Isaiah's walk to school is 3 times as long as Laura's. How far does Isaiah walk to school each day?
4. James has  $4\frac{3}{4}$  feet of rope. He plans to cut off  $1\frac{1}{2}$  feet from the rope. How much rope will be left?

5. Latasha made 128 ounces of punch. How many cups of punch did Latasha make?
6. Complete the following statement. Write *sometimes*, *always*, or *never*.

Trapezoids are \_\_\_\_\_ parallelograms.



5<sup>th</sup> Grade

NTI Day 37

Name:

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School:

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# Chicago aquarium releases penguins after exhibits close due to coronavirus

By N'dea Yancey-Bragg, USA Today, adapted by Newsela staff on 03.23.20

Word Count **498**

Level **MAX**

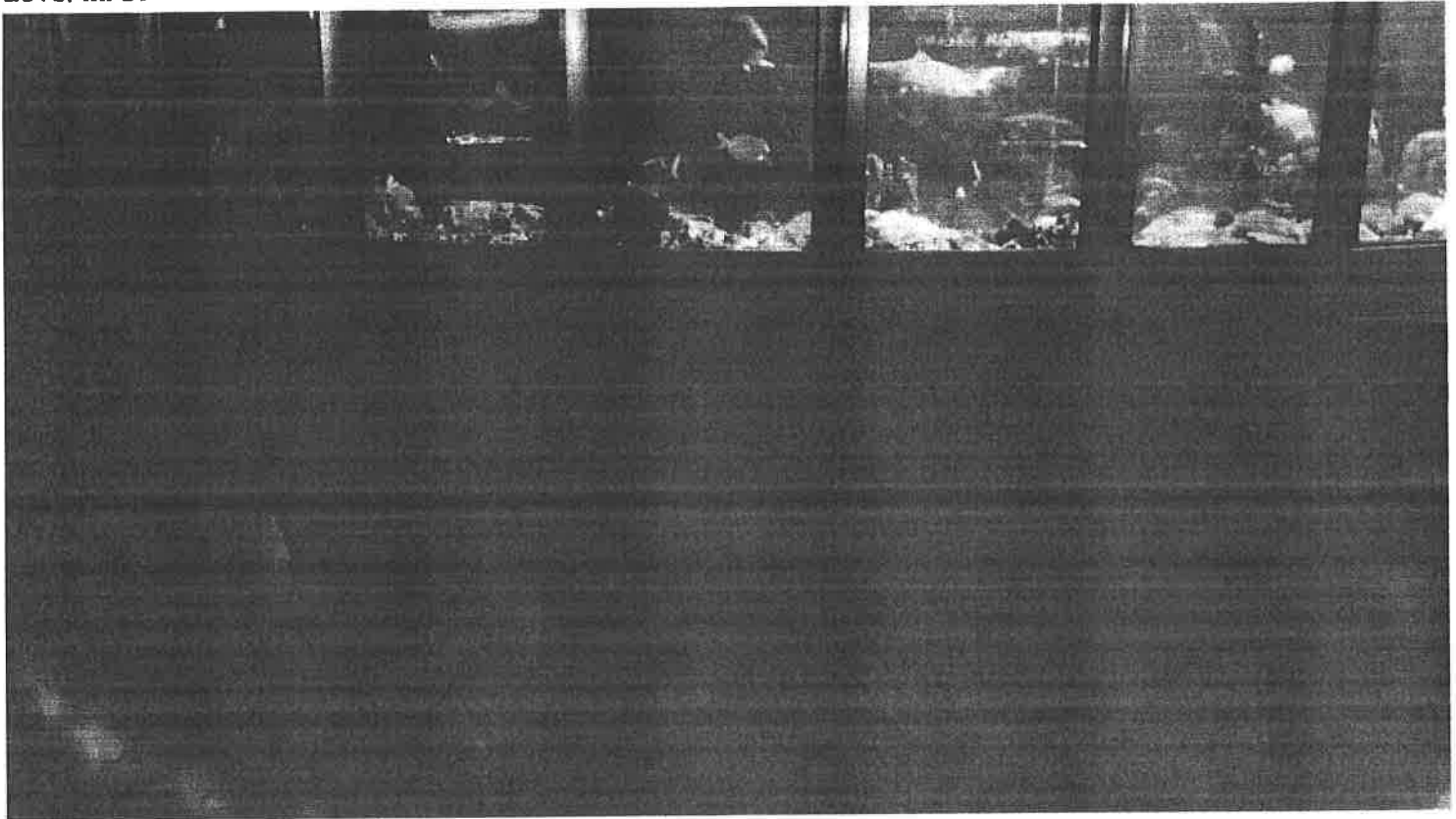


Image 1. The morning of March 15, 2020, Edward and Annie explored the main floor at Shedd Aquarium in Chicago, Illinois. They are a bonded pair of rockhopper penguins, which means they are together for nesting season. Image: Shedd Aquarium Twitter @shedd\_aquarium

After Chicago, Illinois' Shedd Aquarium was forced to close amid the coronavirus pandemic, staff decided to let a few waddling residents out of their enclosures for a field trip.

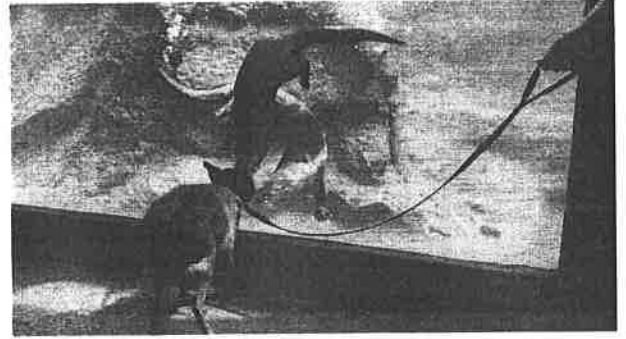
The aquarium shared videos on Twitter on March 15 of three penguins checking out exhibits from the other side of the glass.

"Without guests in the building, caretakers are getting creative in how they provide enrichment to animals," the aquarium said in a statement. "Introducing new experiences, activities, foods and more to keep them active, encourage them to explore, problem-solve and express natural behaviors."

In one video, a rockhopper penguin named Wellington visits the aquarium's Amazon Rising exhibit. The exhibit features creatures from the Amazon River basin. The Amazon River basin is the largest river system and rain forest on Earth. At 30 years old, Wellington is the oldest penguin at the aquarium. He has lived there since it opened in 1991.

Some of the penguins went on a field trip to meet other animals at Shedd. Wellington seemed most interested in the fish in Amazon Rising! The black-barred silver dollars also seemed interested in their unusual visitors.

In another video, a pair of bonded rockhopper penguins named Edward and Annie waddle past a tank full of sharks and rays. Eventually, they wander all the way toward the information desk.



Illinois Governor J.B. Pritzker shut down all restaurants. He also closed schools and banned public gatherings over 50 people. President Donald Trump on March 16 issued guidelines. The guidelines called for Americans to avoid social gatherings of more than 10 people and to limit discretionary travel.

Trump said the call for social distancing could last until August. It has led to the closure of many of Chicago's popular attractions. Among those are the Navy Pier and Cloud Gate Plaza. Cloud Gate Plaza is a section of Millennium Park. It features the famous Cloud Gate sculpture nicknamed "The Bean."

Zoos are also closed due to coronavirus concerns. Some have stayed connected with the public by live-streaming shows with popular animals. The Cincinnati Zoo & Botanical Garden has live-streamed a show with Fiona the hippo. The El Paso Zoo has "zoo cams." They let viewers sneak a peek at the daily life of meerkats, sea lions, giraffes, orangutans and more.

Hector is a Patagonian mara at the Fort Worth Zoo. He has also stepped out for some fresh air while the zoo is closed. Hector got to meet three excited otters during his trek: Benji, Hudson and Makita.

Shedd will remain closed until March 29. It has invited the public to follow along digitally as Edward and Annie begin to build their nests. They will begin building them starting the week of March 23.

"And yes, Wellington will return!" the aquarium tweeted.



## Quiz

1 Read the conclusion below.

*Because the Shedd Aquarium is closed, aquarium employees are taking the opportunity to let the animals have new experiences they might enjoy.*

Which sentence from the article provides the BEST support to the statement above?

- (A) The aquarium shared videos on Twitter on March 15 of three penguins checking out exhibits from the other side of the glass.
- (B) "Without guests in the building, caretakers are getting creative in how they provide enrichment to animals," the aquarium said in a statement.
- (C) At 30 years old, Wellington is the oldest penguin at the aquarium.
- (D) They let viewers sneak a peek at the daily life of meerkats, sea lions, giraffes, orangutans and more.

2 Select the sentence from the article that suggests zoos are using technology to engage visitors while they are closed.

- (A) Some of the penguins went on a field trip to meet other animals at Shedd.
- (B) Eventually, they wander all the way toward the information desk.
- (C) Some have stayed connected with the public by live-streaming shows with popular animals.
- (D) Hector got to meet three excited otters during his trek: Benji, Hudson and Makita.

3 Which answer choice accurately characterizes Governor Pritzker's response to the coronavirus?

- (A) He ordered that all of the penguins in aquariums in Illinois be released until the outbreak is over.
- (B) He ordered the closure of public spaces like aquariums and the cancellation of events to fight the outbreak.
- (C) He asked zoos and aquariums in his state to live-stream popular exhibits for children stuck at home during the outbreak.
- (D) He asked animal caretakers how the state could best support zoos and aquariums during the outbreak.

4 Read the following selection.

*Trump said the call for social distancing could last until August. It has led to the closure of many of Chicago's popular attractions. Among those are the Navy Pier and Cloud Gate Plaza. Cloud Gate Plaza is a section of Millennium Park. It features the famous Cloud Gate sculpture nicknamed "The Bean."*

Why did the author include this information?

- (A) to show that the Shedd Aquarium has been uniquely affected by the coronavirus
- (B) to illustrate that caretakers plan on taking the penguins to Chicago's Millennium Park on their next trip
- (C) to show that Chicagoans are unhappy with the governor's response to the coronavirus
- (D) to illustrate that many of Chicago's famous landmarks have also been closed due to the coronavirus

## Choosing Precise Synonyms

**DIRECTIONS:** Read each starter sentence. Then select the sentence that has the same general meaning, and which uses words that are appropriate for the context of the sentence.

1. **Starter sentence:** Jennifer's backflip was amazing.

- A. Jennifer's backflip was exasperating
- B. Jennifer's backflip was astounding.

2. **Starter sentence:** Jason ate a lot at the feast.

- A. Jason ate a lot at the banquet.
- B. Jason ate a lot at the event.

3. **Starter sentence:** Mary hopes she will be paid for her work.

- A. Mary hopes she will be compensated for her work.
- B. Mary hopes she will be commended for her work.

4. **Starter sentence:** Millie's cookies were tasteless.

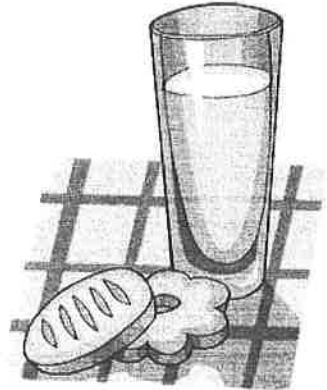
- A. Millie's cookies were boring.
- B. Millie's cookies were bland.

5. **Starter sentence:** Tommy really wants some chocolate.

- A. Tommy really admires some chocolate.
- B. Tommy really craves some chocolate.

6. **Starter sentence:** The boys were polite to Mrs. Little.

- A. The boys were courteous to Mrs. Little.
- B. The boys were curious to Mrs. Little.



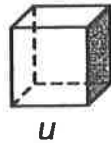
# Understand Volume

Read to Know

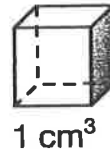
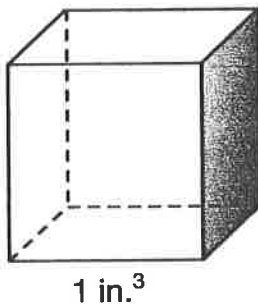
Day # 37

## Getting the Idea

Recall that capacity is a measure of how much a container can hold. Capacity is measured in units such as cups and milliliters. The **volume** of a three-dimensional figure is the number of cubic units that fit inside it. A cubic unit is a cube with each edge measuring 1 unit. For the cube below, let  $u$  represent 1 unit. The volume of this cube can then be expressed as  $u^3$ . The notation  $u^3$  means  $u \times u \times u$ .



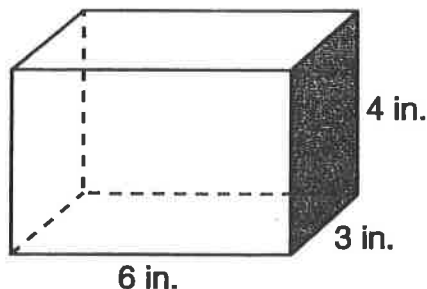
Common units of volume are the cubic inch (cu in.) and the cubic centimeter (cu cm). As shown below, cubic inch can also be abbreviated as  $\text{in.}^3$  and cubic centimeter as  $\text{cm}^3$ . When measuring the volume of an object, more units are needed when smaller cubic units are used.



To find the volume of a rectangular prism or a cube, you can count the number of cubic units that would fit inside the figure.

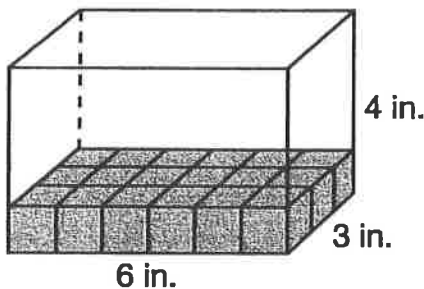
### Example 1

Andrea measured the sides of a rectangular prism in inches. What is the volume of the rectangular prism in cubic inches?



**Strategy** Use 1-inch cubes to find the volume.

**Step 1** Find the number of 1-inch cubes in the bottom layer.



There are 3 rows and 6 columns of 1-inch cubes.

Multiply:  $3 \times 6 = 18$

So there are 18 1-inch cubes in the bottom layer.

**Step 2** Find the number of layers of 1-inch cubes.

Since the height of the rectangular prism is 4 inches and the height of each cube is 1 inch, there will be 4 layers of cubes.

**Step 3** Multiply 4 by the number of cubes in the bottom layer.

$$4 \times 18 = 72$$

Since each cube represents  $1 \text{ in.}^3$ , the volume is  $72 \text{ in.}^3$

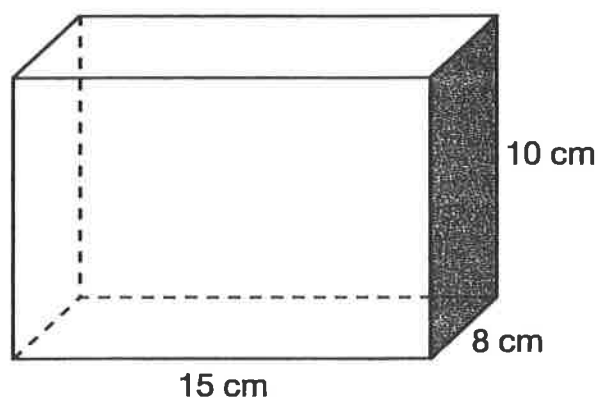
**Solution** The volume of the rectangular prism is 72 cubic inches.

You can also find the volume of a rectangular prism by multiplying the number of cubic units needed to cover the base by the number of layers of cubes needed to fill the height of the prism.

The number of cubes needed to cover the base tells you the area of the base. This is the same as multiplying the edge lengths to find the area of the base. Then multiply the area of the base by the height of the rectangular prism to find the volume of the prism. Remember, area is the number of square units needed to cover a two-dimensional figure.

## Example 2

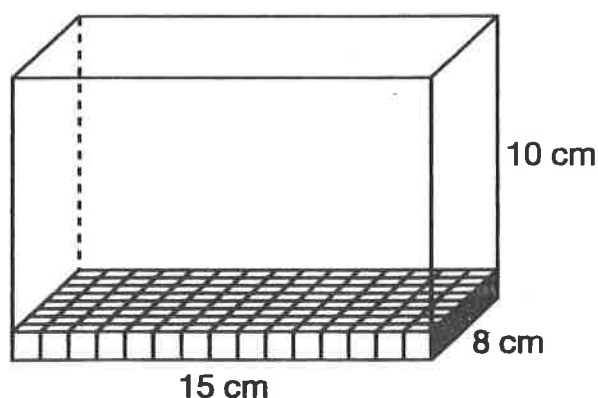
The rectangular prism below has a height of 10 centimeters.



What is the volume of the rectangular prism in cubic centimeters?

**Strategy** Use cubes to find the area of the base. Then multiply the area of the base by the height of the prism.

**Step 1** Find the number of 1-centimeter cubes in the bottom layer.



There are 8 rows and 15 columns of 1-centimeter cubes.

Multiply:  $8 \times 15 = 120$

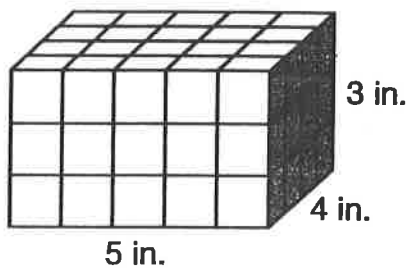
There are 120 1-centimeter cubes in the bottom layer.

The area of the base of the prism is 120 square centimeters.

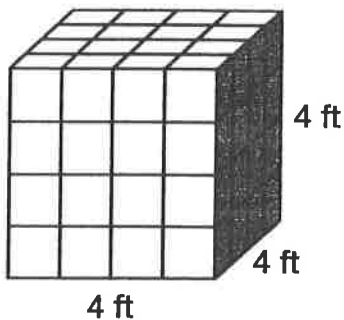
## Lesson Practice

Choose the correct answer.

1. What is the volume of this rectangular prism?

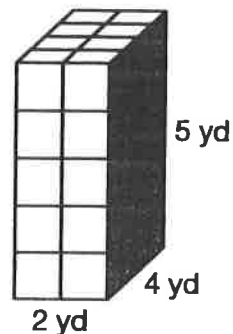


- A. 12 cubic inches  
 B. 20 cubic inches  
 C. 47 cubic inches  
 D. 60 cubic inches
2. What is the volume of this rectangular prism?

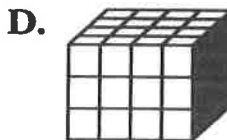
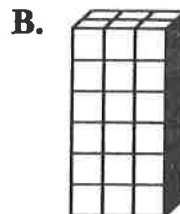
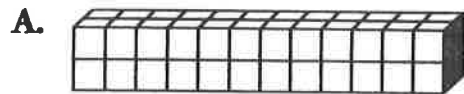


- A. 64 cubic feet  
 B. 45 cubic feet  
 C. 16 cubic feet  
 D. 12 cubic feet

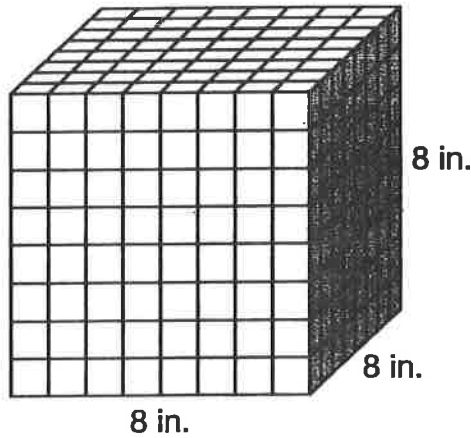
3. What is the volume of this rectangular prism?



- A.  $40 \text{ yd}^3$   
 B.  $20 \text{ yd}^3$   
 C.  $11 \text{ yd}^3$   
 D.  $10 \text{ yd}^3$
4. Which rectangular prism does **not** have a volume of 48 cubic units?

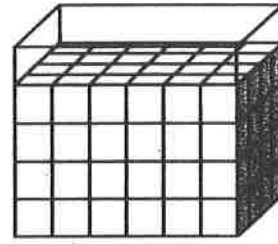


5. What is the volume of this rectangular prism?



- A. 8 cu in.
- B. 24 cu in.
- C. 64 cu in.
- D. 512 cu in.

6. Avery is stacking cube-shaped boxes in a rectangular-shaped storage bin.

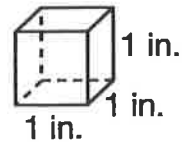


How many more cube-shaped boxes can Avery put in the storage bin?

- A. 96
- B. 30
- C. 24
- D. 20

7. Keiko is putting these blocks into a large box.

- A. If Keiko makes layers of blocks, how many of the blocks can Keiko put into a box that is 6 inches long, 4 inches wide, and 6 inches high? Explain how you found your answer.




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- B. Multiply length  $\times$  width to find the area of the base of the box. Then find the volume by multiplying the area of the base by the height. Compare the volume to your answer in part A. What do you notice?

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Name \_\_\_\_\_

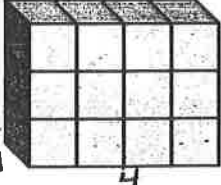
# Share and Show

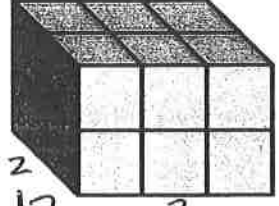


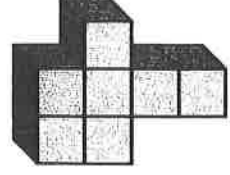
Count the number of cubes used to build each solid figure.

1. The rectangular prism is made up of 3 unit cubes.



2.  12 unit cubes

3.  12 unit cubes

4.  7 unit cubes

5. **WRITE** *Math* How are the rectangular prisms in Exercises 2-3 related? Can you show a different rectangular prism with the same relationship? Explain.

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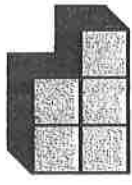
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## Problem Solving • Applications

Compare the number of unit cubes in each solid figure. Use  $<$ ,  $>$  or  $=$ .

6.         unit cubes          unit cubes

7.         unit cubes          unit cubes

8. **MATHEMATICAL PRACTICE 2 Use Reasoning** Melissa makes a solid figure by stacking 1 cube on top of a row of 2 cubes on top of a row of 3 cubes. Then she rearranges the cubes to form a rectangular prism. Describe the arrangement of cubes in the rectangular prism.

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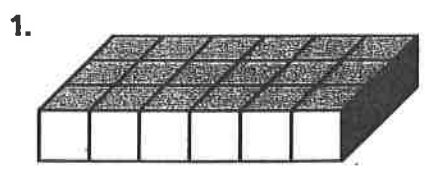
Name \_\_\_\_\_

**Unit Cubes and Solid Figures**

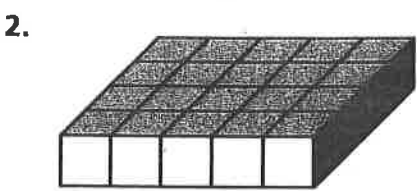


**COMMON CORE STANDARD—5.MD.C.3a**  
*Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.*

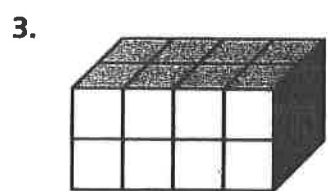
Count the number of cubes used to build each solid figure.



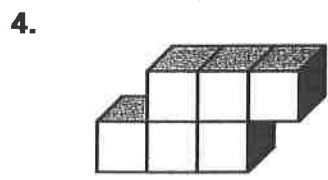
18 unit cubes



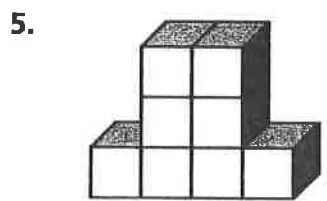
\_\_\_\_\_ unit cubes



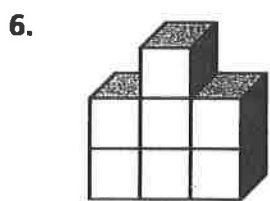
\_\_\_\_\_ unit cubes



\_\_\_\_\_ unit cubes

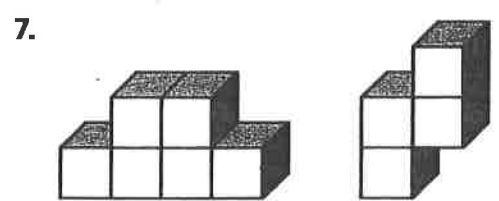


\_\_\_\_\_ unit cubes

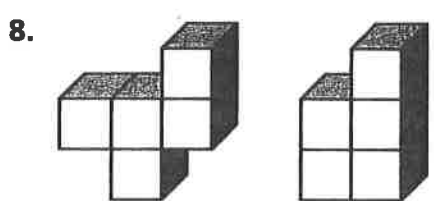


\_\_\_\_\_ unit cubes

Compare the number of unit cubes in each solid figure. Use  $<$ ,  $>$ , or  $=$ .



\_\_\_\_\_ unit cubes ○ \_\_\_\_\_ unit cubes



\_\_\_\_\_ unit cubes ○ \_\_\_\_\_ unit cubes

**Problem Solving** *Real World*

9. A carton can hold 1,000 unit cubes that measure 1 inch by 1 inch by 1 inch. Describe the dimensions of the carton using unit cubes.

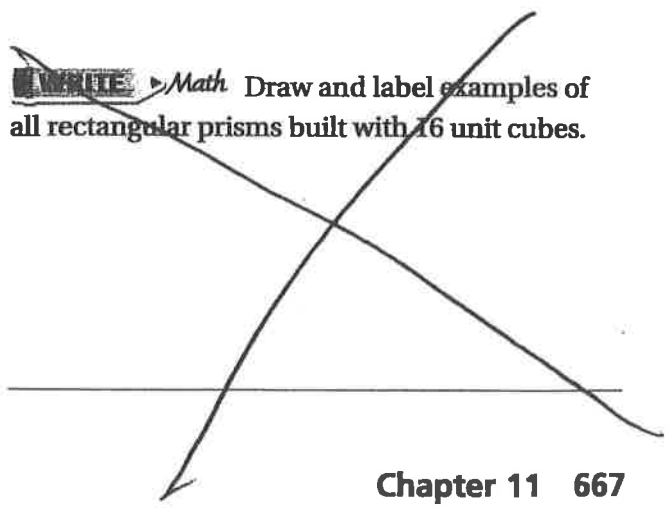
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

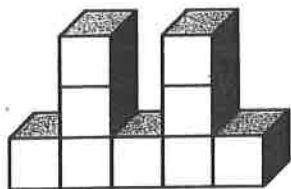
\_\_\_\_\_

10. ~~WRITE Math~~ Draw and label examples of all rectangular prisms built with 16 unit cubes.



## Lesson Check (5.MD.C.3a)

1. Cala stacked some blocks to make the figure below. How many blocks are in Cala's figure?



2. Quentin has 18 unit cubes. How many different rectangular prisms can he build if he uses all of the cubes?

## Spiral Review (5.MD.A.1, 5.MD.C.3, 5.G.B.4)

3. In what shape are the lateral faces of a pyramid?
4. The Arnold family arrived at the beach at 10:30 A.M. They spent  $3\frac{3}{4}$  hours there. What time did they leave the beach?
5. Complete the following statement. Write *sometimes*, *always*, or *never*.
6. The tire on Frank's bike moves 75 inches in one rotation. How many rotations will the tire have made after Frank rides 50 feet?

The opposite sides of a parallelogram  
are \_\_\_\_\_ congruent.



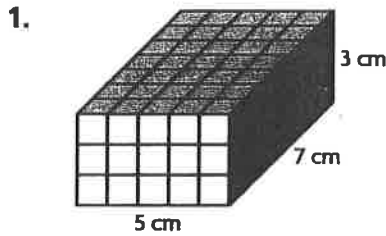
Name \_\_\_\_\_

**Understand Volume**



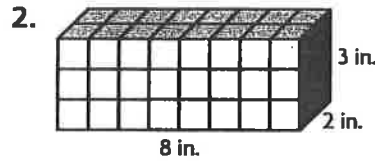
**COMMON CORE STANDARD—5.MD.C.3b**  
**5.MD.C.4** Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

Use the unit given. Find the volume.



Each cube = 1 cu cm

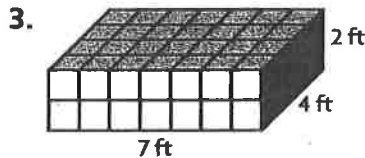
Volume = 105 cu cm



Each cube = 1 cu in.

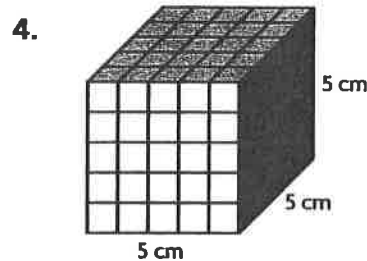
$8 \times 2 \times 3$

Volume = 48 cu in



Each cube = 1 cu ft

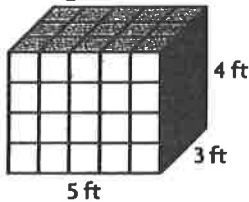
Volume = \_\_\_\_\_ cu \_\_\_\_\_



Each cube = 1 cu cm

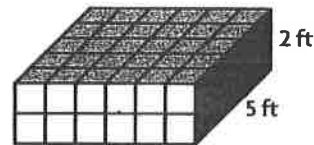
Volume = \_\_\_\_\_ cu \_\_\_\_\_

5. Compare the volumes. Write  $<$ ,  $>$ , or  $=$ .



Each cube = 1 cu ft

\_\_\_\_\_ cu ft  \_\_\_\_\_ cu ft



Each cube = 1 cu ft

**Problem Solving**

6. A manufacturer ships its product in boxes with edges of 4 inches. If 12 boxes are put in a carton and completely fill the carton, what is the volume of the carton?

\_\_\_\_\_

\_\_\_\_\_

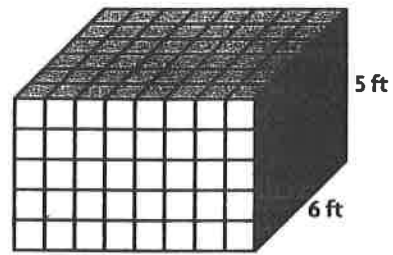
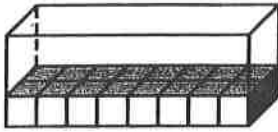
7. Matt and Mindy each built a rectangular prism that has a length of 5 units, a width of 2 units, and a height of 4 units. Matt used cubes that are 1 cm on each side. Mindy used cubes that are 1 in. on each side. What is the volume of each prism?

\_\_\_\_\_

\_\_\_\_\_

## Lesson Check (5.MD.C.3b, 5.MD.C.4)

- Elena packed 48 cubes into this box. Each cube has edges that are 1 centimeter. How many layers of cubes did Elena make?
- What is the volume of the rectangular prism?



Each cube = 1 cu ft

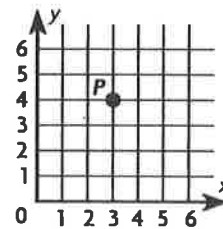
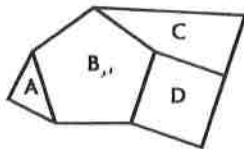
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## Spiral Review (5.MD.A.1, 5.G.A.1, 5.G.B.3, 5.G.B.4)

- Juan made a design with polygons. Which polygon in Juan's design is a pentagon?
- What ordered pair describes the location of point  $P$ ?




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- What is the least number of acute angles that a triangle can have?
- Karen bought 3 pounds of cheese to serve at a picnic. How many ounces of cheese did Karen buy?

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5<sup>th</sup> Grade

NTI Day 38

Name:

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School:

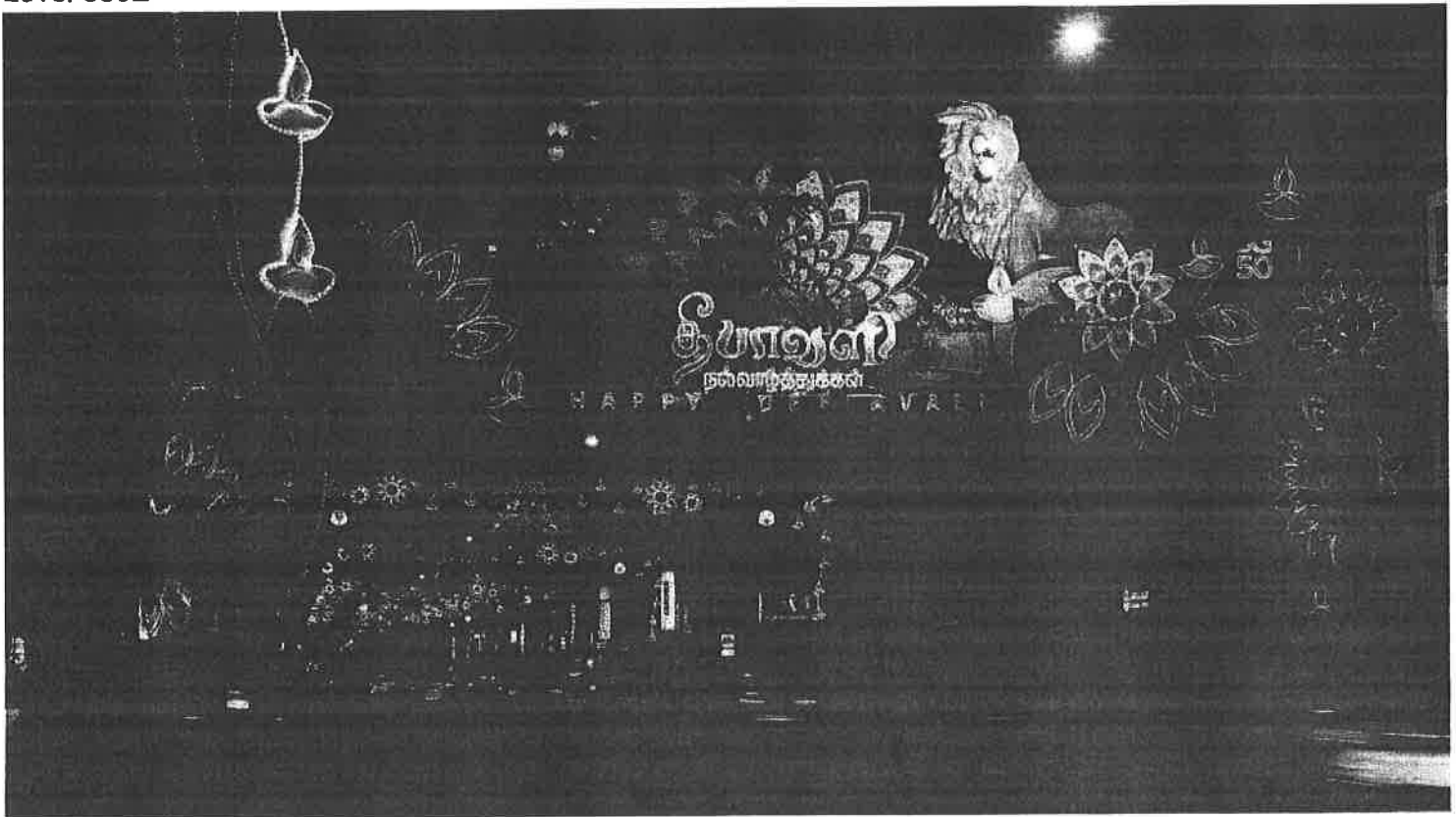
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# The impact of globalization on the physical and human characteristics of communities

By National Geographic Society, adapted by Newsela staff on 04.02.20

Word Count 599

Level 830L



Little India in Singapore is a neighborhood of mostly Indian immigrants and their families. Here, the neighborhood is celebrating Diwali. Ethnic neighborhoods such as Little India can spread cultural celebrations to many different parts of the world. Image: Pixabay/kamodayz.

The world has changed in many ways. It has had huge inventions that have changed transportation, communications and technology. All of these have increased the speed of globalization.



What is globalization? This is a name for the increased connection of people, businesses and organizations around the world. The term is often used in an economic sense. Globalization refers to the trading of goods and services between businesses, organizations and countries. Globalization also refers to cultural changes that might occur as a result of this exchange.

Advances in communication and technology have led to a faster exchange of ideas. Smartphones provide an ongoing connection between immigrants and their families. Global news channels

spread news about faraway events. The Internet allows people all over the world to access the same information and entertainment.

### **Effects On Place**

Place can be defined as the physical and human characteristics of a city, country or region. Physical aspects of a place include things such as landforms, water flow, elevation and climate. Globalization can affect the physical aspects of a place. For example, increased trade might affect the quality of air in a city.

However, globalization can have an even larger effect on culture and human activity. Culture includes religion, language, clothing and ways of life. The rapid spread of information and goods has affected cultures around the world.

### **Effects On Humans**

Globalization is not a new idea. The Silk Road is an example of early globalization. For more than 1,500 years, Europeans traded glass and goods for Chinese silk and spices. Thanks to this ancient trade route, both Europe and Asia became familiar with goods from far away.

The spread of religion can also change the characteristics of places. Europeans colonized North America and South America between the 1700s and the 1900s. They brought their Roman Catholic beliefs with them. This is a type of Christianity. Today, Roman Catholicism is the main religion in many countries in South America.

Language, another defining characteristic of place, also changes with globalization. Today, many people around the world speak English.

The economies, or levels of wealth, of many places have changed as a result of globalization. Globalization can affect where and how people work and live. Globalization allows businesses to work in areas where labor is cheaper. U.S. companies might work with companies in India where labor is less expensive.

In some places, globalization has created new economic opportunities. Clothing has become a big thing to export, or trade, in Bangladesh, a country in South Asia. This has improved the wealth of the country, which is one of the poorest nations of the world.

Globalization also brings about the growth of cities key to global trade. Because of its role in global business, Shanghai, China, has grown to become the world's largest city.

Globalization also has a large effect on culture. Traditions, holidays and popular culture now go beyond borders. For example, more people celebrate Cinco de Mayo in the United States than in Mexico.

Globalization can also bring about cultural changes through the goods people buy. In general, globalization decreases the cost of making goods and the average cost of goods. Cheaper goods lead to a better standard of living. People now also have access to a wider variety of goods. Now, Indian food is widely available in London, England, and Chinese restaurants can be found in almost any American town.

**Globalization creates a more connected world. People around the world listen to the same music and watch the same television programs. All over the world, globalization has forever changed the characteristics of places.**



## Quiz

1 Read the following statements.

1. *There have been many inventions that have changed transportation and technology around the world.*
2. *Changes in communication and technology have increased the connection between people around the world.*
3. *Globalization has negatively affected the quality of air in many major cities.*
4. *Globalization has shaped the economies and cultures of places around the world.*

Which two statements are MAIN ideas from the article?

- (A) 1 and 2
- (B) 3 and 4
- (C) 2 and 4
- (D) 1 and 3

2 Which sentence from the article supports the MAIN idea of the article?

- (A) The world has changed in many ways.
- (B) Place can be defined as the physical and human characteristics of a city, country or region.
- (C) For more than 1,500 years, Europeans traded glass and goods for Chinese silk and spices.
- (D) Traditions, holidays and popular culture now go beyond borders.

3 Read the following selection from the section "Effects On Humans."

*People now also have access to a wider variety of goods. Now, Indian food is widely available in London, England, and Chinese restaurants can be found in almost any American town.*

Which phrase from the selection helps the reader to understand the meaning of "access"?

- (A) wider variety
- (B) widely available
- (C) almost any
- (D) American town

4 Read the following sentence from the introduction [paragraphs 1-3].

*Globalization also refers to cultural changes that might occur as a result of this exchange.*

What is the meaning of the word "exchange" as it is used in the sentence above?

- (A) to have a short conversation
- (B) to give and receive something
- (C) to pay money for something
- (D) to travel somewhere different

## Accurately Describing Actions

**DIRECTIONS:** Read each sentence. Then choose the word that describes how the person is acting. Write that word's letter in the box.

- |                          |   |                 |
|--------------------------|---|-----------------|
| <input type="checkbox"/> | 1. Hey! How's it going? I'm doing well!                 | A aggressive    |
| <input type="checkbox"/> | 2. I'll take care of it. You can count on me.           | B cautious      |
| <input type="checkbox"/> | 3. I think we had better go slowly and take our time.   | C composed      |
| <input type="checkbox"/> | 4. Go on without me. I'll catch up.                     | D exasperated   |
| <input type="checkbox"/> | 5. It'll never work. It's impossible.                   | E anxious       |
| <input type="checkbox"/> | 6. I can't believe this is happening again! Arghh!      | F hearty        |
| <input type="checkbox"/> | 7. Give me that cookie or I will beat you up!           | G compassionate |
| <input type="checkbox"/> | 8. Jane sat quietly as she absorbed the bad news.       | H negative      |
| <input type="checkbox"/> | 9. Do you think they will be okay? Why don't they call? | I reliable      |
| <input type="checkbox"/> | 10. I understand how you feel. Let me help you.         | J sluggish      |



Did you see Jane? How did she take the news?

# Volumes of Rectangular Prisms

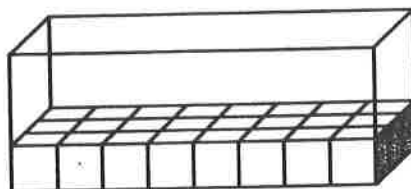
Day # 38

## Getting the Idea

To find the **volume** of a **rectangular prism** or a **cube**, you can count the number of cubic units that would fit inside the figure. You can also multiply the area of the base by the height of the prism. Remember, the total number of cubic units that cover the base of the prism is the area of the base.

### Example 1

The rectangular prism below has a height of 4 inches.



What is the volume of the rectangular prism in cubic inches?

**Strategy** Use cubes to find the area of the base. Then multiply the area by the height of the prism.

#### Step 1

Find the area of the base of the prism.

There are 3 rows and 8 columns of 1-inch cubes.

$$\text{Multiply: } 3 \times 8 = 24$$

There are 24 1-inch cubes in the bottom layer.

So the area of the base of the prism is 24 square inches.

#### Step 2

Multiply the area of the base by the height of the prism.

The area of the base is 24 square inches.

The height of the prism is 4 inches.

$$24 \times 4 = 96$$

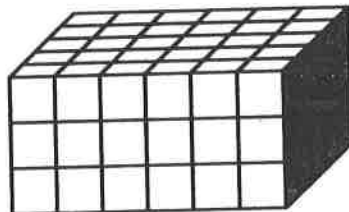
The volume is 96 cubic inches.

**Solution** The volume of the rectangular prism is 96 cubic inches.

The formula for the volume of a rectangular prism is  $V = l \times w \times h$ , where  $V$  is volume,  $l$  is the length,  $w$  is width, and  $h$  is the height of the prism.

## Example 2

This rectangular prism is made up of 1-centimeter cubes.



What is the volume of the rectangular prism?

**Strategy** Use the formula for the volume of a rectangular prism.

**Step 1** Write the formula for volume.

$$V = l \times w \times h$$

**Step 2** Substitute the values into the formula.

The length is 6 centimeters.

The width is 5 centimeters.

The height is 3 centimeters.

$$V = 6 \times 5 \times 3$$

**Step 3** Multiply.

$$V = 6 \text{ cm} \times 5 \text{ cm} \times 3 \text{ cm}$$

$$V = 30 \text{ cm}^2 \times 3 \text{ cm}$$

$$V = 90 \text{ cm}^3$$

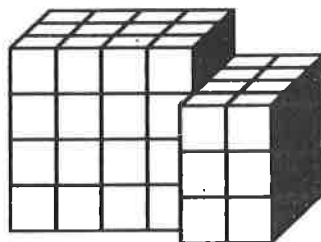
**Solution** The volume of the box is 90 cubic centimeters.

**Note:** You could also use the formula  $V = B \times h$ , where  $V$  is volume,  $B$  is the area of the base, and  $h$  is the height of the prism to find the volume of a rectangular prism.

To find the total volume of a solid figure that is not a rectangular prism, you can break the figure into rectangular prisms.

### Example 3

This figure is made up of 1-inch cubes.



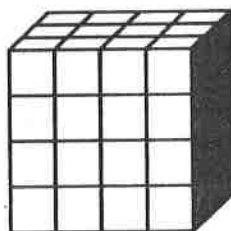
What is the volume of the figure?

**Strategy** Separate the figure into rectangular prisms and find the volume of each part.

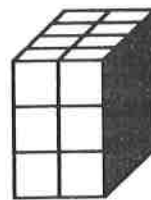
**Step 1**

Separate the figure into two rectangular prisms.

Label the rectangular prisms as Prism A and Prism B.



Prism A



Prism B

**Step 2**

Find the volume of Prism A.

$$V = l \times w \times h = 4 \times 3 \times 4 = 48 \text{ cubic inches}$$

**Step 3**

Find the volume of Prism B.

$$V = 2 \times 4 \times 3 = 24 \text{ cubic inches}$$

**Step 4**

Add the volumes of the two prisms.

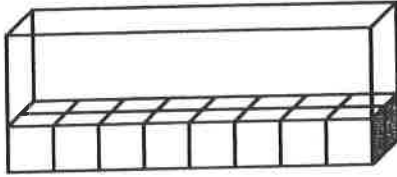
$$48 \text{ cubic inches} + 24 \text{ cubic inches} = 72 \text{ cubic inches}$$

**Solution** The volume of the figure is 72 cubic inches.

## Lesson Practice

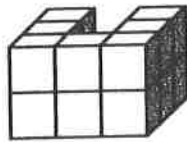
Choose the correct answer.

1. Claudia packed the bottom layer of this box with 1-inch cubes. The height of the box is 3 inches.



What is the volume of the box?

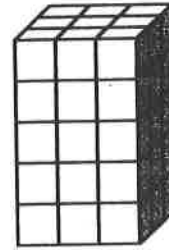
- A. 8 cubic inches
  - B. 16 cubic inches
  - C. 24 cubic inches
  - D. 48 cubic inches
2. This figure is made up of 1-inch cubes.



What is the volume of the figure?

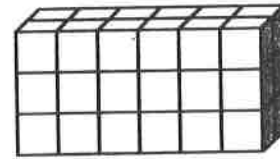
- A. 12 cubic inches
- B. 14 cubic inches
- C. 16 cubic inches
- D. 18 cubic inches

3. This figure is made up of 1-inch cubes.



What is the volume of the rectangular prism?

- A. 45 cubic inches
  - B. 25 cubic inches
  - C. 15 cubic inches
  - D. 11 cubic inches
4. This figure is made up of 1-centimeter cubes.

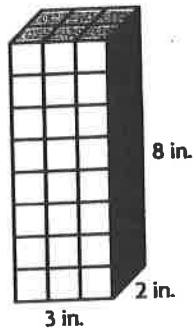


What is the volume of the rectangular prism?

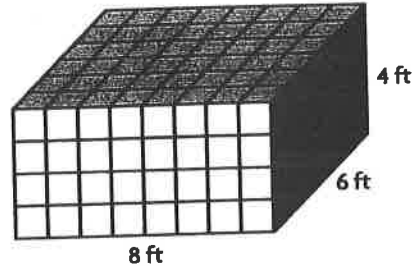
- A. 42 cubic centimeters
- B. 36 cubic centimeters
- C. 18 cubic centimeters
- D. 11 cubic centimeters

**Lesson Check** (5.MD.C.5a)

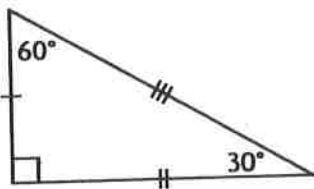
1. Laini uses 1-inch cubes to build the box shown below. What is the volume of the box?



2. Mason stacked 1-foot cube-shaped boxes in a warehouse. What is the volume of the stack of boxes?

**Spiral Review** (5.MD.A.1, 5.G.B.3, 5.G.B.4)

3. What type of triangle is shown below?



4. What quadrilateral always has 4 congruent angles and opposite sides that are congruent and parallel?

5. Suzanne is 64 inches tall. What is Suzanne's height in feet and inches?

6. Trevor bought 8 gallons of paint to paint his house. He used all but 1 quart. How many quarts of paint did Trevor use?

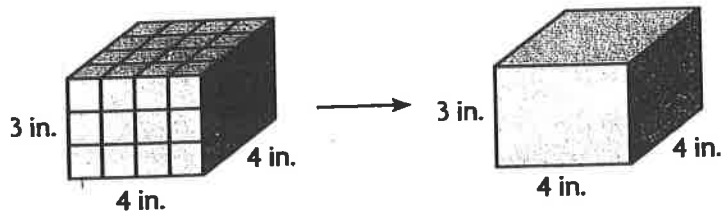


Name \_\_\_\_\_

### Apply Volume Formulas

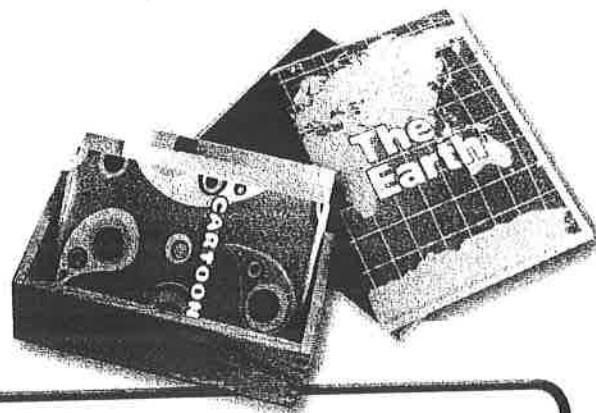
**Essential Question** How can you use a formula to find the volume of a rectangular prism?

**CONNECT** Both prisms show the same dimensions and have the same volume.



Measurement and Data—5.MD.C.5a, 5.MD.C.5b

**MATHEMATICAL PRACTICES**  
MP2, MP6



### Unlock the Problem Real World

Mike is making a box to hold his favorite DVDs. The length of the box is 7 inches, the width is 5 inches and the height is 3 inches. What is the volume of the box Mike is making?

**One Way** Use length, width, and height.

You can use a formula to find the volume of a rectangular prism.

$$\text{Volume} = \text{length} \times \text{width} \times \text{height}$$

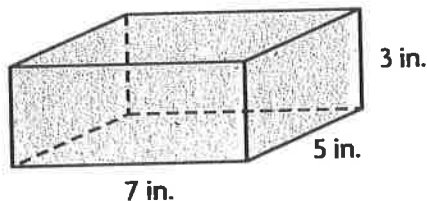
$$V = l \times w \times h$$

**STEP 1** Identify the length, width, and height of the rectangular prism.

length = 7 in.

width = 5 in.

height = 3 in.



**Math Talk**

**MATHEMATICAL PRACTICES 2**

**Connect Symbols and Words** How can you use the Associative Property to group the part of the formula that represents area.

**STEP 2** Multiply the length by the width.

$$\underline{7} \times \underline{5} = \underline{35}$$

**STEP 3** Multiply the product of the length and width by the height.

$$35 \times \underline{3} = \underline{105}$$

So, the volume of Mike's DVD box is 105 cubic inches.



You have learned one formula for finding the volume of a rectangular prism. You can also use another formula.

$$\text{Volume} = \text{Base area} \times \text{height}$$

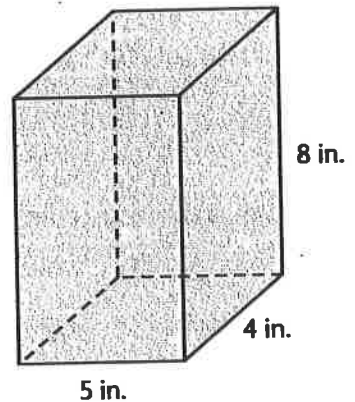
$$V = B \times h$$

$B$  = area of the base shape,

$h$  = height of the solid figure.

### Another Way Use the area of the base shape and height.

Emilio's family has a sand castle kit. The kit includes molds for several solid figures that can be used to make sand castles. One of the molds is a rectangular prism like the one shown at the right. How much sand will it take to fill the mold?



$$V = \quad B \quad \times h$$

$$V = (5 \times 4) \times 8$$

$$V = 20 \times 8$$

$$V = 160 \text{ cu in.}$$

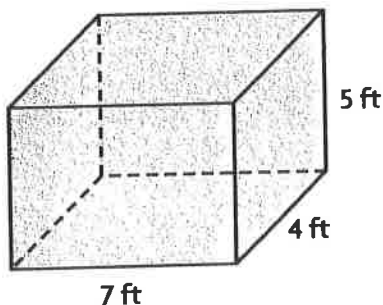
Replace  $B$  with an expression for the area of the base shape. Replace  $h$  with the height of the solid figure.

Multiply.

So, it will take 160 cubic inches of sand to fill the rectangular prism mold.

### Try This!

**A** Find the volume.



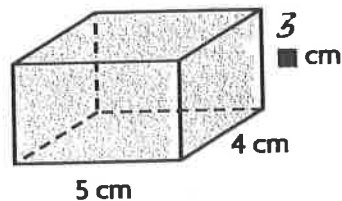
$$V = l \times w \times h$$

$$V = 7 \times 4 \times 5$$

$$V = 28 \times 5$$

$$V = 140 \text{ cu ft}$$

**B** Find the unknown measurement.



$$V = 60 \text{ cu cm}$$

$$V = l \times w \times h$$

$$60 = 5 \times 4 \times \blacksquare$$

$$60 = 20 \times \blacksquare$$

**Think:** If I filled this prism with centimeter cubes, each layer would have 20 cubes. How many layers of 20 cubes are equal to 60?

So, the unknown measurement is 3 cm.

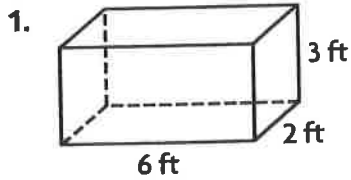
Name \_\_\_\_\_

**Apply Volume Formulas**



**COMMON CORE STANDARD—5.MD.C.5b**  
*Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.*

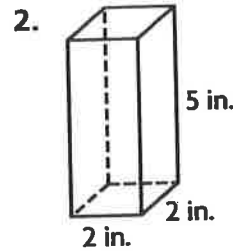
Find the volume.



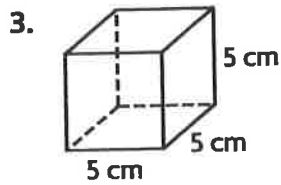
$V = \underline{\quad l \quad} \times \underline{\quad w \quad} \times \underline{\quad h \quad}$

$V = \underline{\quad 6 \quad} \times \underline{\quad 2 \quad} \times \underline{\quad 3 \quad}$

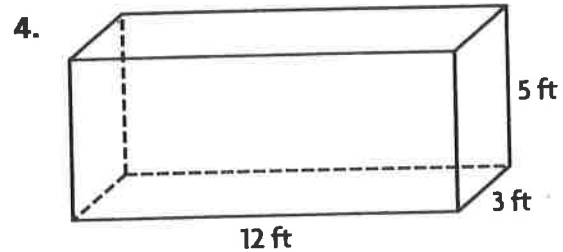
$V = \underline{\quad 36 \text{ ft}^3 \quad}$



$V = \underline{\hspace{2cm}}$



$V = \underline{\hspace{2cm}}$



$V = \underline{\hspace{2cm}}$

**Problem Solving** *Real World*

5. A construction company is digging a hole for a swimming pool. The hole will be 12 yards long, 7 yards wide, and 3 yards deep. How many cubic yards of dirt will the company need to remove?

\_\_\_\_\_

6. Amy rents a storage room that is 15 feet long, 5 feet wide, and 8 feet. What is the volume of the storage room?

\_\_\_\_\_

7. **WRITE** *Math* Explain how you would find the height of a rectangular prism if you know that the volume is 60 cubic centimeters and that the area of the base is 10 square centimeters.

\_\_\_\_\_

\_\_\_\_\_

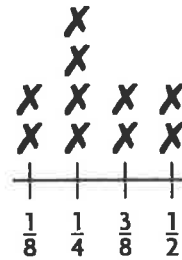
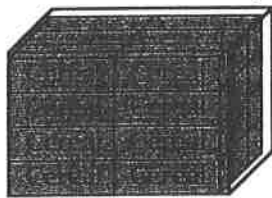
\_\_\_\_\_

## Lesson Check (5.MD.C.5b)

- Sayed is buying a crate for his puppy. The crate is 20 inches long, 13 inches wide, and 16 inches high. What is the volume of the crate?
- Brittany has a gift box in the shape of a cube. Each side of the box measures 15 centimeters. What is volume of the gift box?

## Spiral Review (5.MD.A.1, 5.MD.B.2, 5.MD.C.3a, 5.MD.C.4)

- Max packs cereal boxes into a larger box. The volume of each cereal box is 175 cubic inches. What is the approximate volume of the large box?
- In health class, students record the weights of the sandwiches they have for lunch. The weights are shown in the line plot below. What is the average weight of one sandwich?



**Weights of Sandwiches  
(in pounds)**

- Chloe has 20 unit cubes. How many different rectangular prisms can she build with the cubes?
- Darnell went to the movies with his friends. The movie started at 2:35 P.M. and lasted 1 hour 45 minutes. What time did the movie end?



5<sup>th</sup> Grade

NTI Day 39

Name:

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School:

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# Fake animal news abounds on social media as coronavirus upends life

By National Geographic, adapted by Newsela staff on 04.03.20

Word Count **695**

Level **810L**



Image 1. Clear waters by gondolas in a Venice canal in Venice, Italy, on March 18, 2020. Viral social media posts claimed swans and dolphins were returning to the waters. It wasn't true. The water has been more clear lately as a result of the decrease in boat activity. The traffic stopped after Italy went on lockdown because of the new coronavirus crisis. Photo: Andrea Pattaro/AFP via Getty Images

The week of March 23, 2020, some happy stories on Twitter soften the bad coronavirus news. Swans had returned to empty Venetian canals in Italy. Dolphins, too. Also, a group of elephants walked through a village in Yunnan, China. They drank a corn drink and passed out in a tea garden.

The new coronavirus is a flu-like illness. In many cases, the disease causes mild symptoms like cough and fever. However, it can make some, such as the elderly or those with existing health problems, very sick. The illness is now spreading quickly across the world, forcing people to stay at home. Many are looking for a bright side. This includes pointing to reports of supposed wildlife triumphs in a humanless world. The posts got hundreds of thousands of retweets. They went viral on Instagram and Tik Tok and made news headlines.

However, it was not real.

The swans in the viral posts regularly appear in the canals where the photo was taken. The "Venetian" dolphins were filmed in the Mediterranean Sea, hundreds of miles away. The Chinese news debunked the elephant post. Elephants are normal in the village. The photo was not real, though.

When something goes viral it becomes very popular quickly.

### **Too-Good-To-Be-True Stories**

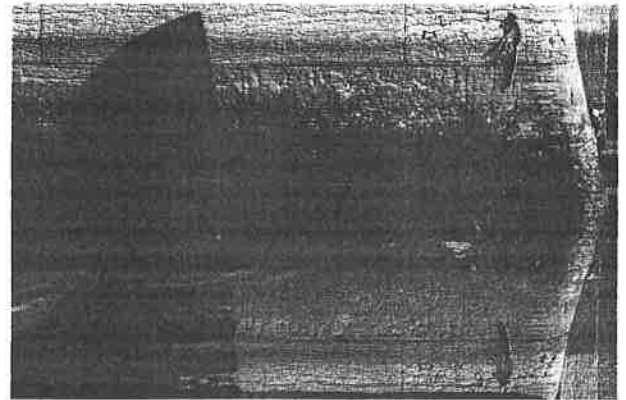
In hard times, too-good-to-be-true stories can spread quickly. Happy animal footage soothes people who are stressed. A 2016 report found that the behavior is so powerful that it follows the same patterns as the spread of diseases.

Kaveri Ganapathy Ahuja put together the tweet about the Venice swans. Ahuja, who lives in New Delhi, India, did not know the swans were regulars. Her tweet now has a million "likes."

"The tweet was just about sharing something that brought me joy in these gloomy times," she says. She never expected it to go viral or cause harm. "I wish there was an edit option on Twitter just for moments like this," Ahuja says.

She does not plan to erase the tweet. She says that it still matters. The waters in Venice are clearer than usual because the boats are gone. The tweet also received more likes and retweets than normal. "It's a personal record for me, and I would not like to delete it," she says.

Paulo Ordoveza is a web developer and image verification expert. He runs the Twitter account @picpedant. There, he exposes fake viral posts. He sees firsthand the desire people have to go viral that may drive people to pass around misinformation.



Getting a lot of "likes" and comments "gives us an immediate social reward," says Erin Vogel. She studies human behavior. In other words, the response makes us feel good.

### **Struggling With Coronavirus And Its Fallout**

The need for something to feel good about is high right now. People are struggling with the coronavirus and its fallout. The idea that animals and nature could do well at this time "could help give us a sense of meaning and purpose — that we went through this for a reason," Vogel says.

Many of the viral tweets followed the same theme. "Nature just hit the reset button on us," read a tweet celebrating the supposed Venice dolphins.

"I think people really want to believe in the power of nature to recover," says Susan Clayton. She is an expert in human behavior and the environment. "People hope that, no matter what we've done, nature is powerful enough to rise above it."

The Pew Research Center studies trends across the country. It surveyed Americans and found that half have seen made-up news or information related to the coronavirus. While a fake dolphin story does not seem too serious, spreading false hope does cause harm.

# Harriet's Debate

Harriet believes so strongly in environmental conservation that she agreed to **debate** Peter about it. Peter's father is an executive at an oil company, who believes that environmental concerns **impede** progress. Harriet felt very **confident** in her arguments, and Peter's **rebuttals** **exasperated** her. But eventually her argument was declared the winner, and Harriet danced around the stage in **jubilation**!



**DIRECTIONS:** Read the passage. Then answer the questions below. Consult a dictionary or thesaurus if you need help.

1. Harriet and Peter were having a:
  - A. Heated argument in public
  - B. Formal discussion in which opposing ideas are put forward
2. Based on the passage, which of the words below do you think is a synonym for **impede**? \_\_\_\_\_
  - A. assist
  - B. obstruct
  - C. enhance
3. What do you think the word **rebuttal** means?
4. Circle the correct answer: If you are extremely excited and happy about something, you are experiencing **exasperation** / **jubilation**.
5. Circle the correct answer: Harriet was **sure** / **not sure** about her arguments.

Name \_\_\_\_\_

5th gr.

**Problem Solving • Compare Volumes**

Calculator allowed



**COMMON CORE STANDARD—5.MD.C.5b**  
Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

Day # 39

Make a table to help you solve each problem.

1. Amita wants to make a mold for a candle. She wants the shape of the candle to be a rectangular prism with a volume of exactly 28 cubic centimeters. She wants the sides to be in whole centimeters. How many different molds can she make?

10 molds

2. Amita decides that she wants the molds to have a square base. How many of the possible molds can she use?

3. Raymond wants to make a box that has a volume of 360 cubic inches. He wants the height to be 10 inches and the other two dimensions to be whole numbers of inches. How many different-sized boxes can he make?

4. Jeff put a small box that is 12 inches long, 8 inches wide, and 4 inches tall inside a box that is 20 inches long, 15 inches wide, and 9 inches high. How much space is left in the larger box?

5. Mrs. Nelson has a rectangular flower box that is 5 feet long and 2 feet tall. She wants the width of the box to be no more than 5 feet. If the width is a whole number, what are the possible volumes for the flower box?

6. **Write** Math Using drawings of rectangular prisms, define in your own words, perimeter, area, and volume. Use color pencils to highlight what each term refers to.



## Lesson Check (5.MD.C.5b)

1. Corey bought a container shaped like a rectangular prism to hold his photo collection. If the container's dimensions are 6 in. by 8 in. by 10 in., what is its volume?
2. Aleka has a box for keepsakes that has a volume of 576 cubic inches. The length of the box is 12 inches and the width is 8 inches. What is the height of the box?

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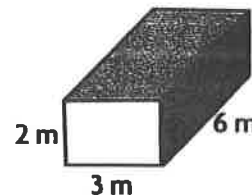
## Spiral Review (5.MD.A.1, 5.MD.C.3, 5.MD.C.5a, 5.MD.C.5b)

3. A movie is 2 hours and 28 minutes long. It starts at 7:50 P.M. At what time will the movie end?
4. How many rectangular faces does a pentagonal pyramid have?

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5. An aquarium is in the shape of a rectangular prism. Its length is 24 inches, its width is 12 inches, and its height is 14 inches. How much water can the aquarium hold?
6. What is the volume of the rectangular prism shown?



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Name \_\_\_\_\_

### Find Volume of Composed Figures

**Essential Question** How can you find the volume of rectangular prisms that are combined?



Measurement and Data—  
5.MD.C.5c  
Also 5.MD.C.5b

5th gr.

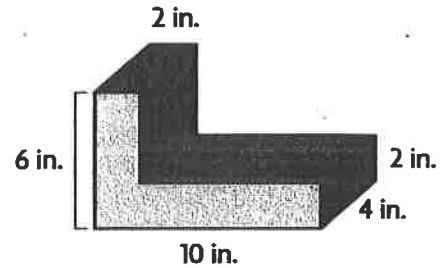
calculators allowed

MATHEMATICAL PRACTICES  
MP3, MP6

Day #39

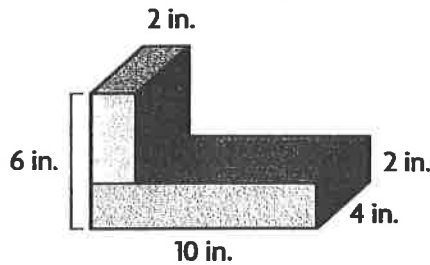
### Unlock the Problem Real World

The shape at the right is a composite figure. It is made up of two rectangular prisms that are combined. How can you find the volume of the figure?

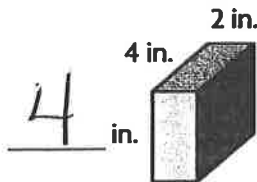


### One Way Use addition.

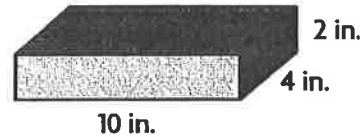
**STEP 1** Break apart the solid figure into two rectangular prisms.



**STEP 2** Find the length, width, and height of each prism.



**Think:** The total height of both prisms is 6 inches. Subtract the given heights to find the unknown height.  $6 - 2 = 4$



**STEP 3** Find the volume of each prism.

$$V = l \times w \times h$$

$$v = 2 \times 4 \times 4$$

$$v = 32 \text{ in.}^3$$

$$V = l \times w \times h$$

$$v = 10 \times 4 \times 2$$

$$v = 80 \text{ in.}^3$$

**STEP 4** Add the volumes of the rectangular prisms.

$$32 + 80 = 112$$

So, the volume of the composite figure is 112 cubic inches.

- MATHEMATICAL PRACTICE 3** Compare Strategies What is another way you could divide the composite figure into two rectangular prisms?

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## Another Way Use subtraction.

You can subtract the volumes of prisms formed in empty spaces from the greatest possible volume to find the volume of a composite figure.

### STEP 1

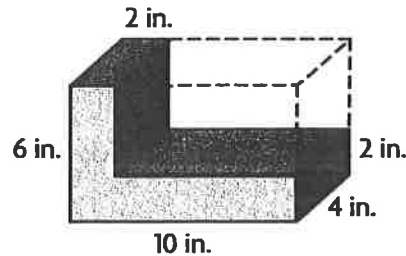
Find the greatest possible volume.

$$\text{length} = \underline{10} \text{ in.}$$

$$\text{width} = \underline{4} \text{ in.}$$

$$\text{height} = \underline{6} \text{ in.}$$

$$V = \underline{240} \text{ cubic inches}$$



### STEP 2

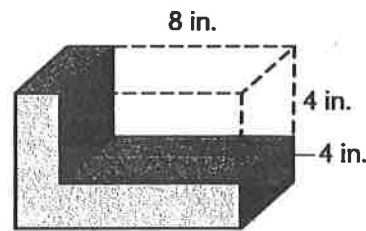
Find the volume of the prism in the empty space.

$$\text{length} = \underline{8} \text{ in.} \quad \text{Think: } 10 - 2 = 8$$

$$\text{width} = \underline{4} \text{ in.}$$

$$\text{height} = \underline{4} \text{ in.} \quad \text{Think: } 6 - 2 = 4$$

$$V = 8 \times 4 \times 4 = \underline{128} \text{ cubic inches}$$



### STEP 3

Subtract the volume of the empty space from the greatest possible volume.

$$\underline{240} - \underline{128} = \underline{112} \text{ cubic inches}$$

So, the volume of the composite figure is 112 cubic inches.

## Try This!

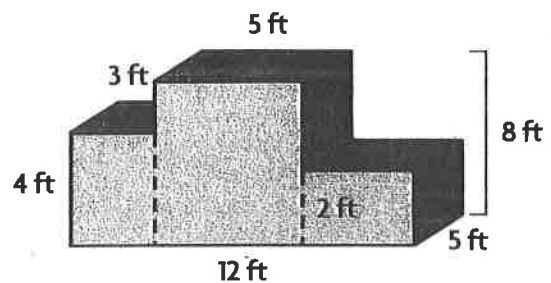
Find the volume of a composite figure made by putting together three rectangular prisms.

$$V = \underline{3\text{ ft}} \times \underline{5\text{ ft}} \times \underline{4\text{ ft}} = \underline{60} \text{ cu ft}$$

$$V = \underline{5\text{ ft}} \times \underline{5\text{ ft}} \times \underline{8\text{ ft}} = \underline{200} \text{ cu ft}$$

$$V = \underline{4\text{ ft}} \times \underline{5\text{ ft}} \times \underline{2\text{ ft}} = \underline{40} \text{ cu ft}$$

$$\text{Total volume} = \underline{60} + \underline{200} + \underline{40} = \underline{300} \text{ cubic feet}$$



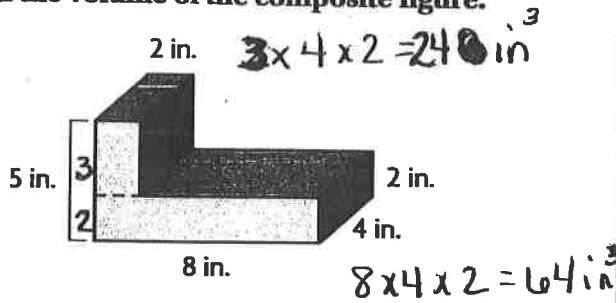
Name \_\_\_\_\_

# Share and Show



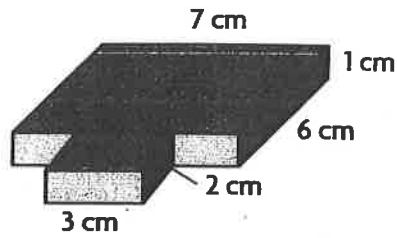
Find the volume of the composite figure.

1.



$V = 88 \text{ cu in}$

2.

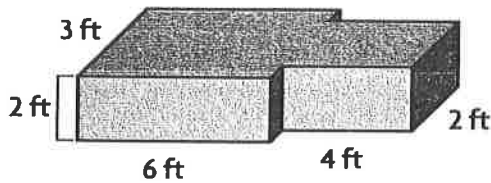


$V = \underline{\hspace{2cm}}$

## On Your Own

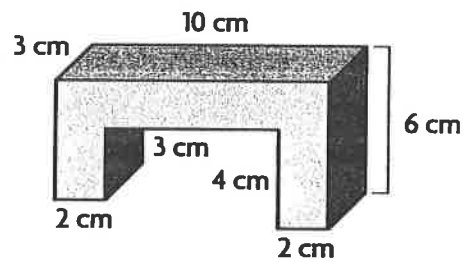
Find the volume of the composite figure.

3.



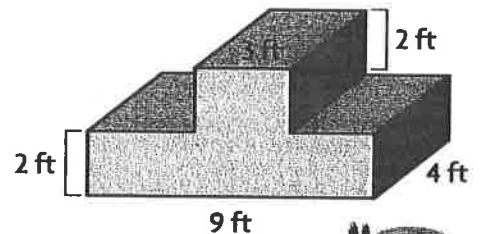
$V = \underline{\hspace{2cm}}$

4.

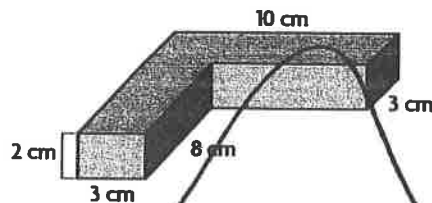


$V = \underline{\hspace{2cm}}$

5. **DEEPER** Mr. Williams' class built this platform for a school event. They also built a model of the platform in which 1 foot was represented by 2 inches. What is the volume of the platform? What is the volume of the model?



6. **THINK SMARTER** Patty added the values of the expressions  $2 \times 3 \times 11$  and  $2 \times 3 \times 10$  to find the volume of the composite figure. Describe her error. What is the correct volume of the composite figure?



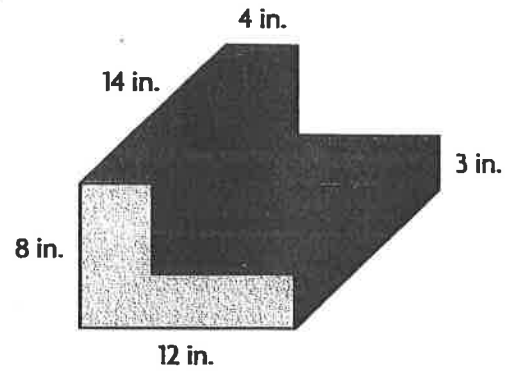
\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Problem Solving • Applications** *Real World*

Use the composite figure at the right for 7–9.



7. As part of a wood-working project, Jordan made the figure at the right out of wooden building blocks. How much space does the figure he made take up?

\_\_\_\_\_

8. What are the dimensions of the two rectangular prisms you used to find the volume of the figure? ~~What other rectangular prisms could you have used?~~

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

9. **MATHEMATICAL PRACTICE 6** If the volume is found using subtraction, what is the volume of the empty space that is subtracted? Explain.

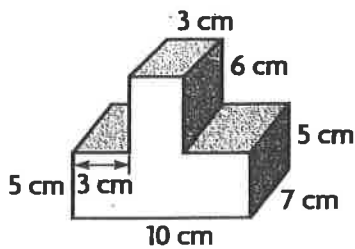
\_\_\_\_\_  
 \_\_\_\_\_

10. **WRITE** *Math* Explain how you can find the volume of composite figures that are made by combining rectangular prisms.

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Personal Math Trainer**

11. **THINK SMARTER +** A composite is shown. What is the volume of the composite figure?



Volume = \_\_\_\_\_ cubic centimeters

Name \_\_\_\_\_

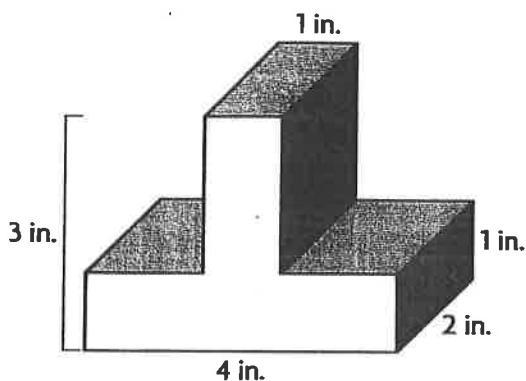
**Find Volume of Composed Figures**



**COMMON CORE STANDARD—5.MD.C.5c**  
*Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.*

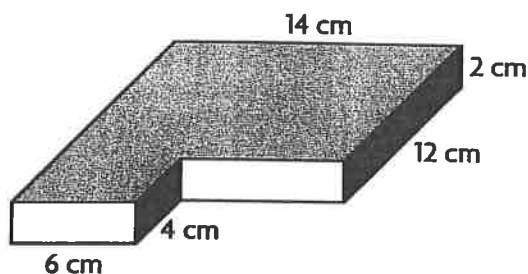
Find the volume of the composite figure.

1.



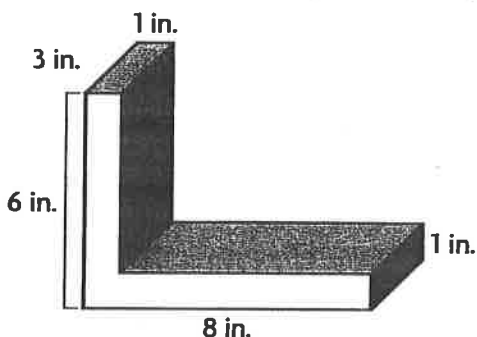
$V =$  \_\_\_\_\_

2.



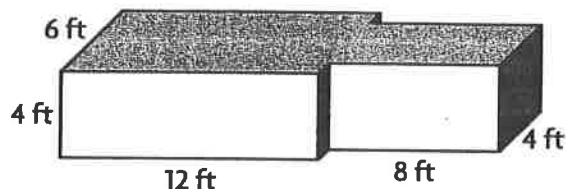
$V =$  \_\_\_\_\_

3.



$V =$  \_\_\_\_\_

4.

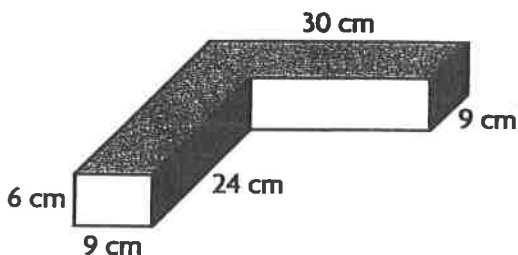


$V =$  \_\_\_\_\_

**Problem Solving**

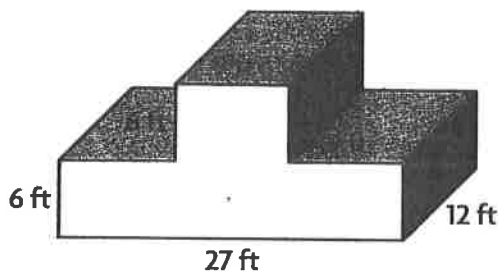


5. As part of her shop class, Jules made the figure below out of pieces of wood. How much space does the figure she made take up?



\_\_\_\_\_

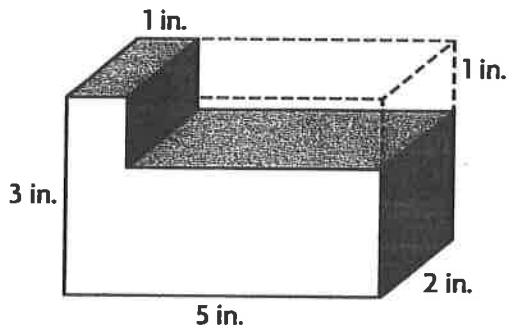
6. What is the volume of the composite figure below?



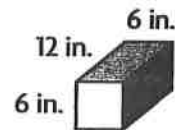
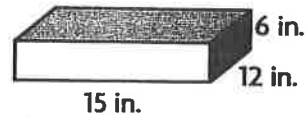
\_\_\_\_\_

## Lesson Check (5.MD.C.5c)

1. Write an expression to represent the volume of the composite figure.



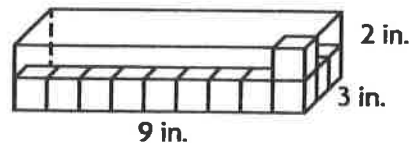
2. Suppose you take the small prism and stack it on top of the larger prism. What will be the volume of the composite figure?



## Spiral Review (5.NF.B.6, 5.NF.B.7c, 5.MD.C.5a, 5.MD.C.5b)

3. Jesse wants to build a wooden chest with a volume of 8,100 cubic inches. The length will be 30 inches and the width will be 15 inches. How tall will Jesse's chest be?

4. What is the volume of the rectangular prism?



5. Adrian's recipe for cranberry relish calls for  $1\frac{3}{4}$  cups of sugar. He wants to use  $\frac{1}{2}$  that amount. How much sugar should he use?

6. Joanna has a board that is 6 feet long. She cuts it into pieces that are each  $\frac{1}{4}$  foot long. Write an equation to represent the number of pieces she cut.



**Lewis County Schools**

**5<sup>th</sup> Grade**

**NTI Day 40**

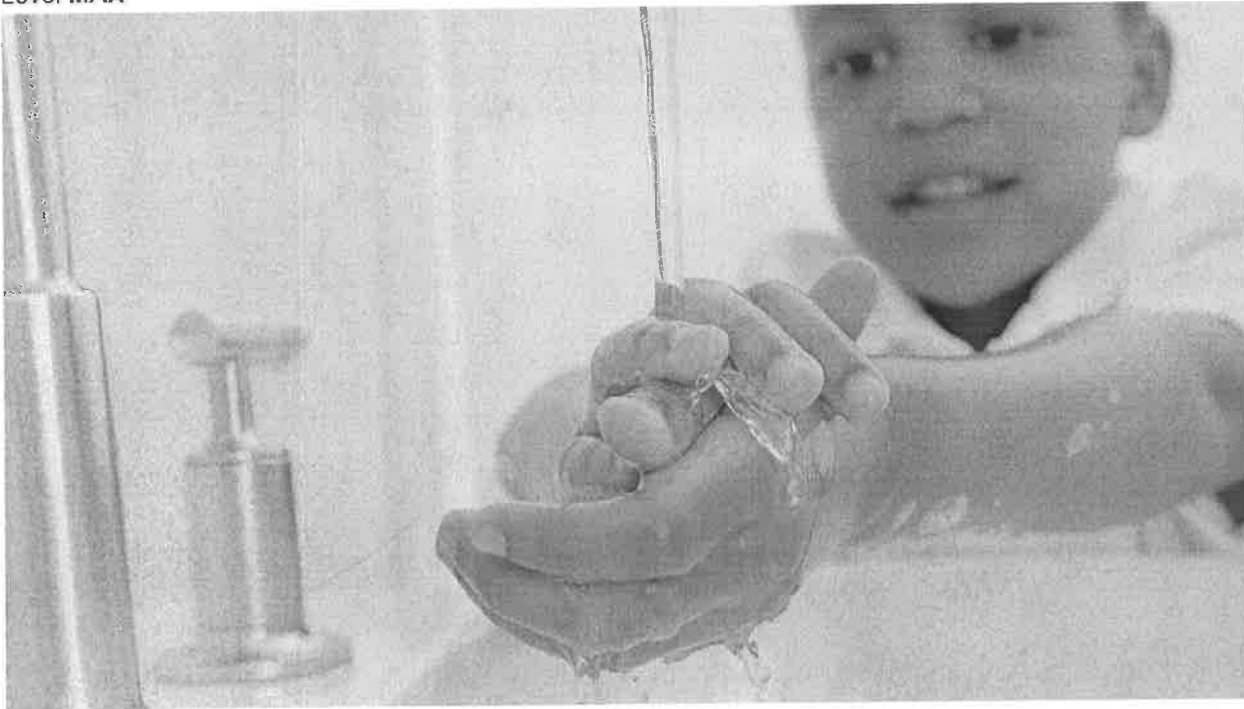


# Top 10 tips to stay safe during an epidemic

By Janet Raloff, Science News for Students on 03.31.20

Word Count 834

Level MAX



Keeping your hands clean is one of the best ways to protect yourself against disease. When you wash your hands, scrub away for 20 seconds. Sing the "Happy Birthday" song twice as you wash to help keep track of the time. Photo: Blend Images/GI/Jamie Grill/Getty Images

Whether bird flu, the coronavirus COVID-19, MERS or Zika, the threat of a serious epidemic can strike fear in people across the globe. It's wise to respect these infections. After all, each can seriously sicken people. Still, there's no reason to panic. You can protect yourself by practicing good hygiene.

Here's what infectious-disease experts and officials at the World Health Organization advise:

## 1. Wash your hands!

Often. Assume that sneezes or germy hands have left infectious residues on every surface that you have not personally cleaned or seen cleaned (especially outside your home). Scrub away for 20 seconds. (Sing the Happy Birthday song twice — and not quickly — while you wash.) Don't forget to wash between fingers and under nails. If soap and water is unavailable, you can disinfect hands with an alcohol-based hand sanitizer. Another option: If you have to turn a door knob, put a clean tissue or paper towel between the knob and your hand.

## 2. Disinfect surfaces.

These include desk tops, phone keypads, computer keyboards, TV remotes, door handles and kitchen counters. Rub them down with a rag or paper towel that has been dampened with alcohol-based disinfectant. (Don't get electronics wet. A dampened rag is sufficient and won't harm your devices.)

**3. Don't eat food or handle dishes or utensils touched by a sick family member.**

If you must touch a spoon someone else has handled (but not had in their mouth), do so, and then wash your hands.

**4. Don't share a towel with anyone in your household who is sick.**

Get your own and make sure it is washed regularly with hot water. Dry towels in the sun or a hot dryer cycle.

**5. Don't shake hands, kiss or hug people.**

This is the time for fist- or elbow bumps. Or smile from an arm's distance.

**6. Don't touch your face.**

It's hard not to. Most people do it without thinking several times each hour. But germs you pick up from touching a contaminated surface may begin reproducing as soon as they contact moist areas of our eyes, nose and mouth.

**7. Avoid crowds.**

If you must go out where plenty of people are present, whenever possible keep a cough's distance away from them — about a meter (or yard). Someone near to you may be infected and show no symptoms.

**8. Wear gloves while out in public.**

Any cotton, wool or lycra glove will do. Don't touch the outside of the gloves when you remove them, and once home, wash the gloves in hot water (but don't dry wool ones with heat or they'll shrink). Disposable latex or other types of plastic gloves can be reused several times if you spray the outside with an alcohol-based disinfectant right before taking them off.

**9. Don't share papers.**

Now is the time to use digital documents. If your teachers don't ask you to write papers on a computer, suggest it. But make sure that everyone is expecting to move documents this way and looks for them. When it comes to the daily mail, dispose of envelopes and any papers you don't need as soon as you can, and then wash your hands.

**10. Practice good hygiene.**

Wash your hands, and cough and sneeze into your elbow. Keep in mind that you may become infected and show no symptoms. This means you might be able to infect people at high risk of serious disease, such as an elderly grandparent or a classmate with asthma.

Finally, what about masks? Viruses can pass through the materials in most masks. There are some very expensive types (known as N-95 and N-99) that have been made to largely control exposure to disease, but during epidemics, they should be reserved to help those on the frontlines of disease — doctors and nurses. Cheaper surgical masks tend to help healthy people. Their biggest benefit is in curbing the release of infected droplets of saliva and snot from people who are already ill.

### **What if you feel ill during a disease outbreak?**

Don't go to school or work. You or some family member should call and ask advice from a doctor or other health professional. What you have may be a cold. But during epidemics, doctors recommend being extra cautious and reporting any possible sign that it might be far worse.

Know what symptoms to look for. With the COVID-19 coronavirus, for instance, key symptoms have been fever, chest congestion, cough and shortness of breath — not a runny nose. Knowing what symptoms characterize an outbreak may help you know whether you likely have a cold or something potentially much worse.

If you have a fever, don't travel. This symptom usually is a sign that your body is battling a major infection. If you discover such symptoms while flying, tell a crew member immediately. Once you have landed, consult a health professional. And let them know what areas you had visited before your flight.

## Quiz

1

Which sentence in the article BEST supports the conclusion that many diseases need water to spread?

- (A) If soap and water is unavailable, you can disinfect hands with an alcohol-based hand sanitizer.
- (B) Rub them down with a rag or paper towel that has been dampened with alcohol-based disinfectant.
- (C) But germs you pick up from touching a contaminated surface may begin reproducing as soon as they contact moist areas of our eyes, nose and mouth.
- (D) When it comes to the daily mail, dispose of envelopes and any papers you don't need as soon as you can, and then wash your hands.

2

Read the conclusion below.

*Staying away from others can help to stop the spread of diseases.*

Which sentence from the article provides the BEST support to the statement above?

- (A) You can protect yourself by practicing good hygiene.
- (B) If you must touch a spoon someone else has handled (but not had in their mouth), do so, and then wash your hands.
- (C) If you must go out where plenty of people are present, whenever possible keep a cough's distance away from them — about a meter (or yard).
- (D) This means you might be able to infect people at high risk of serious disease, such as an elderly grandparent or a classmate with asthma.

3

What does the author do to build understanding of how to stay safe during an epidemic?

- (A) She lists steps that people can take to slow the spread of COVID-19.
- (B) She compares the risk of COVID-19 with the risk of other diseases.
- (C) She provides anecdotes about people who avoided COVID-19.
- (D) She explains the risks people face from the spread of COVID-19.

4

Read the following selection from the article.

*Assume that sneezes or germy hands have left infectious residues on every surface that you have not personally cleaned or seen cleaned (especially outside your home).*

Why did the author include this idea?

- (A) It explains how COVID-19 is different than other types of diseases.
- (B) It emphasizes that germs survive on surfaces even if they cannot be seen.
- (C) It shows that everyone shares the responsibility of keeping surfaces sanitized.
- (D) It reveals that there are many different ways to stop the spread of COVID-19.

# Using Context Clues

**L.5.4a:** Use context (e.g., cause/effect relationships and comparisons in text) as a clue to the meaning of a word or phrase.

 **Introduction** You can use **context clues** to figure out the meaning of an unfamiliar word. The chart below gives examples of different types of context clues.

Type of Clue	Example
<b>Definition</b>	<u>Superfoods</u> , or natural foods that may prevent disease, have become popular.
<b>Cause/Effect</b>	Some superfoods, such as blueberries and red beans, contain <u>antioxidants</u> . These can help remove harmful substances from the human body.
<b>Comparison</b>	Some experts look <u>dubiously</u> on claims about superfoods, but other experts believe strongly that these foods can improve health.

Context clues can also help you figure out words with more than one meaning. For example, the table below has two sentences with the word *source*. What does *source* mean in each sentence? You can use the underlined context clues to figure out which meaning of *source* is being used.

Sentence	Context Clues	Definition
Choosing high-sugar drinks can be a source of health <u>problems</u> .	A <u>problem</u> has a cause. Therefore, the source of a problem is its cause.	the cause of something
The <u>website</u> MyPlate.gov is a source for <u>facts</u> about food choices.	A <u>website</u> can have information such as <u>facts</u> . Therefore, a source is something that gives information.	something that gives information

The sentences before and after the sentence with an unfamiliar word can also hold context clues.

## Guided Practice

**Determine the meanings of *fleeting*, *empirical*, and *panacea*. Then underline the words or phrases that helped you determine their meaning.**

**HINT** The phrases *as a result of*, *because of*, and *thanks to* all signal cause-and-effect relationships. Words such as *but*, *too*, *also*, and *as well as* all indicate comparisons.

Some fads are **fleeting**, but more than a few people feel that superfoods are here to stay. The idea of superfoods isn't new, but the amount of **empirical** information we have about them is. Scientific observations and tests offer some evidence that certain foods can help people stay healthy. Nobody claims that these foods are a **panacea**—nothing can guarantee perfect health or cure every disease—but they can be part of a sensible diet.

 Independent Practice

For numbers 1 and 2, read the paragraph.  
Then answer the questions.

For centuries, people in coastal areas of China and Japan have harvested a superfood found in marine environments. Recent studies show that eating seaweed protects against infection. It also might reduce the risk of serious diseases and extend peoples' life spans. If true, these would be important benefits.

- 1 What does the word marine mean in this paragraph?
  - A very nutritious
  - B dark blue in color
  - C having to do with the ocean
  - D member of the armed forces
  
- 2 Which two words from the paragraph help you understand the meaning of marine?
  - A "China" and "Japan"
  - B "coastal" and "seaweed"
  - C "centuries" and "people"
  - D "superfood" and "studies"

For numbers 3 and 4, read the paragraph.  
Then answer the questions.

Closer to home, you can find superfoods right in your garden or local store. Think "crisp and crunchy." Cabbage, broccoli, cauliflower, and kale detoxify harmful substances. As a result, they may help to prevent some forms of cancer. These veggies also are low in calories and have lots of vitamins A, C, and K.

- 3 What does the word detoxify mean in this paragraph?
  - A to move in a wide circle
  - B to chew food slowly
  - C to make a difficult decision
  - D to remove bad effects
  
- 4 Which two words from the paragraph help you understand the meaning of detoxify?
  - A "crisp" and "crunchy"
  - B "prevent" and "cancer"
  - C "veggies" and "substances"
  - D "calories" and "vitamins"

# Day 40 Factors and Multiples Review Skills

## 1—The Train Ride

<sup>1</sup>Mrs. Applecrumb, Mrs. Winterbloom, Mr. Papas, Ms. Kamen, Ms. Twinkle and Mr. Lyons were on the same train car. <sup>2</sup>Mrs. Applecrumb sat in seat 10. <sup>3</sup>Mrs. Winterbloom sat in seat 5 next to Mr. Papas, who sat in seat 6. <sup>4</sup>Ms. Kamen always sat in the back on the last seat, seat 27, because she liked to stretch her legs and grade her students' papers. <sup>5</sup>Ms. Twinkle sat in seat 20 next to Mr. Lyons, who sat in seat 19.

<sup>6</sup>The train engineer loved to play math games during the ride. <sup>7</sup>He said over the loud speaker, "Does anyone know what a factor is?" <sup>8</sup>Mrs. Winterbloom, who was not really listening, said, "This man is silly. <sup>9</sup>Of course, I know what a tractor is." <sup>10</sup>Mr. Papas laughed and explained to her that the word was "factor" not "tractor." <sup>11</sup>The train engineer then

said, "If any of you are seated in a seat that is a factor of 20, you will get a free engineer's cap. <sup>12</sup>Now remember, my fellow riders, a factor is any number that goes into another number evenly or without a remainder." <sup>13</sup>He explained, "Remember, the factors of 12 are 1, 2, 3, 4, 6 and 12. <sup>14</sup>Don't get this confused with the word m-u-l-t-i-p-l-e (he said this word very slowly). <sup>15</sup>The multiples of 12 are 12, 24, 36, 48, 60, etc., etc." <sup>16</sup>Mr. Lyons became very happy. <sup>17</sup>He began to shout, "I am seated on a seat that is a factor of 20." <sup>18</sup>This made Ms. Kamen very upset. <sup>19</sup>She began to mumble to herself and shake her head.

<sup>20</sup>Then the engineer said, "By the way, any of you who are seated in a seat that is a multiple of 1 will get a free ride next time."

### Questions

1. What are the factors of 20? \_\_\_\_\_.

Give the number of the sentence that provides the best evidence for your answer.

\_\_\_\_\_

2. Of the people mentioned in the story, who will get a free engineer's cap on this ride? Use complete sentences to explain your thinking.

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3. Is Mr. Lyons correct in thinking that he will be getting a free engineer's cap on this ride? Why or Why not? Use complete sentences to explain your thinking.

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4. Which of the following shows the first four multiples of 3?


- a. 3, 6, 9, and 12
- b. 3, 9, 12, and 18
- c. 1, 3, 6 and 9
- d. none of these

Give the number of the sentence that provides the best evidence for your answer.

\_\_\_\_\_

5. Of the people mentioned in the story, who is seated in a seat that is a multiple of 3?

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6.  Why is 1 a factor of every number? Use complete sentences to explain your thinking.

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7. Which choice best tells who will be getting a free ride next time they ride the train?

- a. Ms. Kamen
- b. Mr. Papas and Ms. Twinkle
- c. Mrs. Applecrumb
- d. All of them



Review Day 40 Skill: Multiplying Decimals

Name \_\_\_\_\_

Multiply.

1. 
$$\begin{array}{r} 5.2 \\ \times 1.8 \\ \hline 416 \\ +520 \\ \hline 9.36 \end{array}$$

2. 
$$\begin{array}{r} 2.2 \\ \times 4.4 \\ \hline \end{array}$$

3. 
$$\begin{array}{r} 1.3 \\ \times 1.0 \\ \hline \end{array}$$

4. 
$$\begin{array}{r} 6.4 \\ \times 2.5 \\ \hline \end{array}$$

5. 
$$\begin{array}{r} 5.4 \\ \times 1.3 \\ \hline \end{array}$$

6. 
$$\begin{array}{r} 10.5 \\ \times 6.6 \\ \hline \end{array}$$

7. 
$$\begin{array}{r} .12 \\ \times 3.7 \\ \hline \end{array}$$

8. 
$$\begin{array}{r} 7.1 \\ \times .25 \\ \hline \end{array}$$

9. 
$$\begin{array}{r} 16.2 \\ \times 1.1 \\ \hline \end{array}$$

10. 
$$\begin{array}{r} 6.6 \\ \times 1.5 \\ \hline \end{array}$$

11. 
$$\begin{array}{r} 2.8 \\ \times 9.9 \\ \hline \end{array}$$

12. 
$$\begin{array}{r} 5.20 \\ \times .21 \\ \hline \end{array}$$

13. 
$$\begin{array}{r} 7.54 \\ \times 2.77 \\ \hline \end{array}$$

14. 
$$\begin{array}{r} 2.0 \\ \times 2.1 \\ \hline \end{array}$$

15. 
$$\begin{array}{r} 4.44 \\ \times .01 \\ \hline \end{array}$$

**Lewis County Schools**

**5<sup>th</sup> Grade**

**NTI Day 41**

# U.S. citizens' rights and responsibilities

By U.S. Citizenship and Immigration Services, adapted by Newsela staff on 06.01.17

Word Count **892**

Level **940L**



Members of the armed services recite the pledge of allegiance during a naturalization ceremony at the USS Midway Museum, in May 2009 in San Diego, California. (U.S. Navy photo by Legalman 1st Class Jennifer L. Bailey/Released)

For 200 years, the Declaration of Independence and the Constitution have outlined the freedoms and protections of all Americans. Every citizen has the same rights no matter their background, culture or religion. To protect our democracy, all citizens should know what rights they have and apply them.

New citizens in the U.S. take an Oath of Allegiance, where they promise to be loyal and to support the country. U.S. citizens have important rights and responsibilities, which include the right to vote in elections and the ability to serve on a jury. The ability to vote means that the power of government comes directly from the American people. Former Supreme Court Justice Louis Brandeis once said, "The only title in our democracy superior to that of President [is] the title of citizen."

## Rights Of A Citizen

**Freedom to express yourself.** This includes freedom of speech, freedom to meet in a group peacefully, and the freedom to protest if you think the government has done something wrong.

Americans can speak and act as they wish, as long as it does not hurt others or stop others from speaking freely.

**Freedom to worship as you wish.** You have the freedom to follow any religion or no religion at all. But some religious acts can be hurtful and unhealthy to others. The Supreme Court has put some limits on these kind of actions.

**Right to a prompt, fair trial by jury.** People accused of a crime have the right to a speedy and fair trial, where a jury of citizens decide the verdict. Anyone accused of a crime is considered innocent until they are proven guilty.

**Right to keep and bear arms.** The Constitution protects your right to have firearms. Citizens have the right to protect themselves, but can lose this right if they are a danger to others or criminals who break the law.

**Right to vote in elections.** You can vote in federal, state and city elections to choose your leaders. The right to vote stops politicians from becoming too powerful, by keeping power in the hands of citizens.

**Right to apply for employment in the government.** U.S. citizens can apply for a job working for the government, which can be a rewarding career serving the American people.

**Right to run for elected office.** You must become a U.S. citizen if you want to run for office, but you must have been born in the United States to run for President and Vice President.

**Freedom to pursue "life, liberty, and the pursuit of happiness."** The Declaration of Independence says you have rights to "life, liberty and the pursuit of happiness." The United States lets you choose your own path in life, so that you can set your own goals. Americans can make their own decisions as long as it does not take rights from others.

#### Responsibilities Of A Citizen

**Support and defend the Constitution against all enemies.** The Constitution establishes the U.S. system of democracy, whose purpose is to give all citizens freedom, liberty and opportunity. To continue to strive for this goal, the Constitution has to be protected by its citizens. The Constitution may get challenged by people from other countries, but U.S. citizens must keep defending its principles.

**Stay informed.** U.S. citizens should learn about the candidates running for office and know about problems in their city, state and country.

**Participate in the democratic process.** Vote in city, state and federal elections, because it is the most important responsibility of any citizen. Voting is our voice that tells our leaders what



needs to be done.

**Respect and obey federal, state and local laws.**

Every person living in the United States must follow federal, state and city laws. These are rules that keep society in order, so that our rights can be respected by everyone.

**Respect the rights, beliefs and opinions of others.** The United States is a nation made up of people with different backgrounds and cultures. We must have respect for the beliefs and opinions of others, so that liberty and freedom can continue for future generations.

**Participate in your town or city.** Contribute what you can to the well-being of the community. Go to town hall meetings, volunteer to help others, join a local parent-teacher group, or run for public office.

**Pay your taxes.** Taxes pay for the government, so it can help educate children and adults, keep our country safe and our people healthy. Paying taxes on time helps every American have access to these services.

**Serve on a jury when called upon.** U.S. citizens can serve on a jury to decide fairly if a person is innocent or guilty.

**Defend the country if the need should arise.** You can volunteer to be a part of the Armed Forces of the United States. Today, all our soldiers and sailors are volunteers, but there are also ways to defend our country by having jobs that do not ask you to fight. You can volunteer to help with the environment, education or health care.



## Quiz

1 Look at the photograph in the section "Rights Of A Citizen."

Which selection from the article is BEST illustrated by the photograph?

- (A) Every citizen has the same rights no matter their background, culture or religion. To protect our democracy, all citizens should know what rights they have and apply them.
- (B) This includes freedom of speech, freedom to meet in a group peacefully, and the freedom to protest if you think the government has done something wrong.
- (C) You can vote in federal, state and city elections to choose your leaders. The right to vote stops politicians from becoming too powerful, by keeping power in the hands of citizens.
- (D) Contribute what you can to the well-being of the community. Go to town hall meetings, volunteer to help others, join a local parent-teacher group, or run for public office.

2 Which option accurately compares and contrasts HOW the top two images and the bottom two images impact the reader's understanding of citizens' rights and responsibilities?

- (A) The first two images show the right of citizens to peacefully protest, and the bottom two images show the responsibility to take part in government.
- (B) The first two images show the responsibility of citizens to volunteer in their communities, and the bottom two images show how to become government leaders.
- (C) The first two images show how citizens can apply to work for the government, and the bottom two images show the responsibilities when they have those jobs.
- (D) The first two images show how citizens can participate as part of a group, and the bottom two images show how individuals can make a difference.

3 Which sentence from the article BEST supports the idea that citizens will have rights only if they actively protect them?

- (A) People accused of a crime have the right to a speedy and fair trial, where a jury of citizens decide the verdict.
- (B) The United States lets you choose your own path in life, so that you can set your own goals.
- (C) The Constitution may get challenged by people from other countries, but U.S. citizens must keep defending its principles.
- (D) Today, all our soldiers and sailors are volunteers, but there are also ways to defend our country by having jobs that do not ask you to fight.

4 Read the sentence from the second paragraph of the article.

*Former Supreme Court Justice Louis Brandeis once said, "The only title in our democracy superior to that of President [is] the title of citizen."*

Which sentence from the article provides further support for Brandeis' claim?

- (A) Americans can speak and act as they wish, as long as it does not hurt others or stop others from speaking freely.
- (B) The right to vote stops politicians from becoming too powerful, by keeping power in the hands of citizens.
- (C) U.S. citizens can apply for a job working for the government, which can be a rewarding career serving the American people.
- (D) U.S. citizens should learn about the candidates running for office and know about problems in their city, state and country.

# Synonyms and Antonyms

**L.5.5c:** Use the relationship between particular words (e.g., synonyms, antonyms ...) to better understand each of the words.



## Introduction

Words in English can have meanings that are similar or opposite. If you know how two words are related, you can use the meaning of a familiar word to figure out what an unfamiliar word means.

- A **synonym** is a word that has the same or nearly the same meaning as another word.

Spain established colonies in North America, and other European countries founded colonies as well.

- An **antonym** is a word that has the opposite meaning of another word.

In 1607, the English started their first permanent settlement in North America. Earlier English colonies had been temporary instead.

- Words and phrases such as *but*, *instead of*, *not*, *rather than*, and *unlike* are clues that a sentence or paragraph might have words that are antonyms.

Colonists often struggled to survive and not to perish.

Survival meant overcoming rather than surrendering to challenges.



## Guided Practice

Each sentence contains both a synonym and an antonym of the underlined word. Find each one, and then write them on the lines below the sentence.

**HINT** Words that are synonyms of each other have nearly the same meaning as each other.

- 1 In Jamestown, for example, colonists faced severe winters—harsh and quite unlike the mild ones they had known in England.

synonym: \_\_\_\_\_ antonym: \_\_\_\_\_

- 2 Mosquitoes brought illness, and water from the river carried disease, so only a few of the colonists kept their health.

synonym: \_\_\_\_\_ antonym: \_\_\_\_\_

- 3 But the colonists soon acquired new skills, shed old ways of thinking, and gained an understanding of their new home.

synonym: \_\_\_\_\_ antonym: \_\_\_\_\_

- 4 In time, the colony that had threatened to become a disaster like the others instead avoided failure and became a success.

synonym: \_\_\_\_\_ antonym: \_\_\_\_\_

## Independent Practice

For numbers 1–4, answer the questions.

**1** Read the sentence below.

The colonists planted crops that were strange to them, plants that were unlike the comfortably familiar foods that were common in Europe.

Which word in the sentence is an antonym of familiar?

- A planted
- B strange
- C common
- D comfortably

**2** Read the sentence below.

Soon they began concentrating on ways to make money, focusing their efforts on plants and ignoring other possible sources of riches.

Which word in the sentence is a synonym of concentrating?

- A focusing
- B ways
- C efforts
- D ignoring

**3** Read the sentence below.

The colonists tried growing valuable crops for sale, and while many plants were worthless, the tobacco plant proved profitable.

Which word in the sentence is an antonym of profitable?

- A valuable
- B sale
- C worthless
- D tobacco

**4** Read the sentence below.

By 1620, tobacco was the major crop in Jamestown's economy, the chief export that outsold all other, minor goods.

Which word in the sentence is a synonym of chief?

- A minor
- B crop
- C export
- D major



Day 41

# Decimal Operations

## 10-Off to the Movies!

Review Skills

<sup>1</sup>Lucy, Melissa and Amy decided to go to the matinee movies on Sunday.  
<sup>2</sup>The regular movie price is \$7.00 per person, but \$5.00 is the price for the Sunday matinee.

<sup>3</sup>Lucy brought \$16.00. <sup>4</sup>Melissa brought \$14.00. <sup>5</sup>Amy had \$6.50.  
<sup>6</sup>They decided to put all their money together to pay for the movie and buy

all they wanted to eat. <sup>7</sup>Each girl got a different size soda. <sup>8</sup>They decided to buy only one candy bar and share it among the three of them. <sup>9</sup>They each bought their own popcorn. <sup>10</sup>Amy bought the medium popcorn. <sup>11</sup>After paying for the movies and all the food they realized that they had spent all their money!

### Trapezoid Theatre Snack Menu

Extra Large Popcorn	\$6.00	Candy bar	\$2.00
Medium Popcorn	4.50	Coffee	1.25
Small Popcorn	4.00	Hot Tea	1.00
Large Soda	3.50		
Medium Soda	2.00	<b><i>Our Popcorn is</i></b>	
Small Soda	1.50	<b><i>Always Fresh!</i></b>	

### Questions

1. How much money did the girls spend on the movie tickets? \_\_\_\_\_ Show your work.

Give the numbers of the two sentences that provide the best evidence for your answer. \_\_\_\_\_, \_\_\_\_\_

2. Before spending any money, how much did the girls have altogether? \_\_\_\_\_ Show your work.

3. How much did the three girls spend on soda? \_\_\_\_\_ Show your work.

Give the number of the sentence that provides the best evidence for your answer.

\_\_\_\_\_

4. How much did the girls spend in total for the movie, sodas, and candy bar? \_\_\_\_\_ Show your work.

5. How much money do they have left over for popcorn? \_\_\_\_\_ Show your work.

6. What size popcorn did Melissa and Lucy buy? \_\_\_\_\_ Use complete sentences to explain your thinking.

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7. If at the end, one of the girls had found three dollars in her purse, would they have had enough money to buy Lucy and Melissa each an extra large popcorn? \_\_\_\_\_ Use complete sentences to explain your thinking.

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# Review Day 41

Skill: Dividing Decimals

Name \_\_\_\_\_

Divide.

1.  $2 \overline{) 8.44}$

$$\begin{array}{r} 4.22 \\ 2 \overline{) 8.44} \\ \underline{-8} \phantom{0} \phantom{0} \\ 04 \phantom{0} \\ \underline{-4} \phantom{0} \\ 04 \\ \underline{-4} \\ 0 \end{array}$$

2.  $7 \overline{) 3.92}$

3.  $6 \overline{) 3.6}$

4.  $4 \overline{) 9.6}$

5.  $5 \overline{) 1.25}$

6.  $2 \overline{) 9.4}$

7.  $7 \overline{) 3.92}$

8.  $5 \overline{) .865}$

9.  $14 \overline{) 1.218}$

10.  $24 \overline{) 17.28}$

11.  $46 \overline{) .2346}$

12.  $67 \overline{) 274.7}$

**Lewis County Schools**

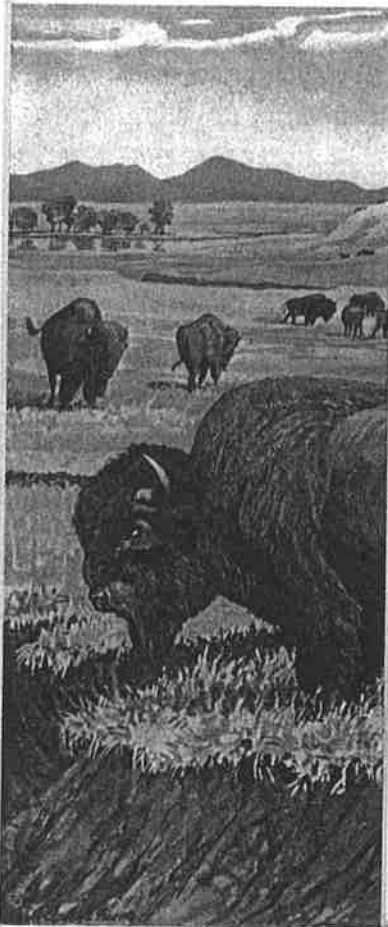
**5<sup>th</sup> Grade**

**NTI Day 42**

# Lesson 17

*Read this report about the Plains Indians. As you read, think about the main idea of the report and what the details tell about the main idea.*

## WHEN THE BUFFALO ROAMED



Huge herds of buffalo once roamed the Great Plains of North America. The Plains Indians hunted these large animals. They used buffalo as a source of food, shelter, clothing, and tools. At first, the Indians hunted the buffalo on foot. After Europeans brought horses to North America, the Indians hunted on horseback. Both on foot and on horseback, they were expert hunters.

Before they had horses, Plains hunters sometimes crawled quietly through tall grass to get close to a buffalo. When a hunter was within shooting range, he could use his bow and arrow to kill the buffalo. One arrow, aimed at the right place, could kill a buffalo that weighed 2,000 pounds. In winter, there was no tall grass. Then, the hunters might cover themselves with animal skins to sneak up on buffalo. Sometimes they used a buffalo skin. They also used wolf skins. Healthy buffalo were not afraid of wolves.

In the 1500s, Spanish explorers brought horses to North America. Some of the horses escaped and roamed wild. The Plains Indians soon learned how to tame and ride these useful animals. Before long, the Indians were expert horsemen. They began to hunt buffalo from horses. Chasing buffalo on horseback was always dangerous. If a horse stumbled and fell, the rider could be trampled by the buffalo. Some hunters made the hunt even more dangerous. They used spears instead of bows and arrows. Spears took more strength. Also, riders had to get closer to a buffalo to kill it with a spear.

There was one method of hunting buffalo that the Indians used both before and after they had horses. A group of hunters would stampede a herd of buffalo, causing a headlong rush over a cliff. Another group would be waiting at the bottom of the cliff to kill the animals that had not died from the fall. If there was no cliff, the hunters might build a V-shaped corral out of wood or stones. They would then stampede the herd from the wide end of the V to the narrow end. The hunters would stand outside the corral, where they could kill the buffalo with less risk to themselves.

The Plains Indians were smart hunters. They figured out how to use whatever they had to hunt buffalo. It was for their own survival.

*Answer these questions about the report.*

**1. What is the report mostly about?**

- Ⓐ Plains Indians crawled close to buffalo to shoot them with arrows.
- Ⓑ Plains Indians were expert hunters of buffalo on foot and on horseback.
- Ⓒ After the Spanish brought horses to North America, Plains Indians hunted on horseback.
- Ⓓ Plains Indians used to hunt by stampeding a herd of buffalo over a cliff.

**2. What is the second paragraph mostly about?**

- Ⓐ how the Plains Indians hunted buffalo on horseback
- Ⓑ why the Plains Indians wore wolf skins to hunt buffalo
- Ⓒ why some Plains Indians used spears to kill buffalo
- Ⓓ how the Plains Indians hunted buffalo on foot

**3. What did the Plains Indians use to hunt buffalo?**

- Ⓐ spears and bows and arrows
- Ⓑ spears
- Ⓒ guns
- Ⓓ bows and arrows

**4. Which of these details tells about Spanish explorers?**

- Ⓐ They hunted buffalo on horseback.
- Ⓑ They brought horses to North America in the 1500s.
- Ⓒ They taught the Plains Indians how to hunt on horseback.
- Ⓓ They learned how to hunt buffalo on foot.

**5. Write three details about hunting buffalo on horseback.**

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 **Introduction** Writers use **figurative language**, including similes and metaphors, to help readers imagine what one thing is like by comparing it to something else.

- A **simile** compares two or more things using the words *like* or *as*. The table below contains two sentences with similes. It then explains what those similes mean.

Simile	What It Means
Noah stood as still as a <i>rabbit</i> trying not to be seen.	Noah stood very still.
The <i>world</i> around him was like a <i>beautiful movie</i> .	Noah saw beautiful things happening all around him.

- A **metaphor** compares two or more things *without* using the words *like* or *as*. In the metaphor below, the clouds are compared to sailing ships.

Metaphor	What It Means
White <i>clouds</i> were <i>ships</i> sailing across the sky.	The clouds moved like ships across the sky.



### Guided Practice

Find the simile or metaphor in each sentence. Underline the two things being compared. Then write the meaning of the simile or metaphor.

**HINT** After you find the two things being compared, ask yourself: How are they alike? Use your answer to figure out what each simile or metaphor means.

- 1** Sunbeams were golden threads piercing the clouds.

Meaning: \_\_\_\_\_

\_\_\_\_\_

- 2** Mountain goats leaped like dancers from rock to rock.

Meaning: \_\_\_\_\_

\_\_\_\_\_

- 3** The butterflies drifted as lazily as falling leaves.

Meaning: \_\_\_\_\_

\_\_\_\_\_

- 4** Bright flowers were jewels gleaming in the sunlight.

Meaning: \_\_\_\_\_

\_\_\_\_\_

 **Independent Practice**

For numbers 1–5, choose the correct meaning of the underlined simile or metaphor.

- 1** The landscape was a patchwork quilt of sights and sounds.
- A** The quilt showed a variety of sights and sounds.
  - B** The quilt had a picture of the landscape on it.
  - C** The landscape had a blanket covering it.
  - D** The landscape had a variety of sights and sounds.
- 2** A waterfall gushed like a faucet down the side of the mountain.
- A** The waterfall was powerful.
  - B** The waterfall was narrow.
  - C** A faucet was on the mountain.
  - D** A faucet made the waterfall.
- 3** The brook gurgled as happily as a well-fed baby.
- A** A baby made pleasant sounds near the brook.
  - B** The brook made a pleasant sound.
  - C** There were many fish in the brook.
  - D** The well-fed baby sounded happy.
- 4** Croaking frogs sounded as loud as a marching band.
- A** The frogs marched as they made croaking sounds.
  - B** The frogs were very musical.
  - C** The frogs croaked very loudly.
  - D** The marching band sounded like loud croaking.
- 5** Noah was a sponge, soaking up the landscape's sights and sounds.
- A** Noah was good at cleaning.
  - B** Noah fell into the water and got soaked.
  - C** Noah was thirsty as he watched and listened.
  - D** Noah looked at and listened to everything.



Day 42

# Fractions/Measurement Review

## 16—The Best Pancake Recipe

Skills

<sup>1</sup>Olga is having eleven friends over for a slumber party. <sup>2</sup>She wants to make her mom's best pancake recipe. <sup>3</sup>This is the recipe:

- 1 c flour
- 1 c buttermilk
- 1  $\frac{1}{3}$  T sugar
- 1 t baking powder
- $\frac{1}{2}$  t baking soda
- $\frac{1}{2}$  t salt
- 1 T vegetable oil
- 1 egg

<sup>4</sup>Combine the flour, baking powder, baking soda, salt, and sugar in a medium bowl. <sup>5</sup>Then, add the buttermilk, egg, and oil. <sup>6</sup>Mix by hand until blended. <sup>7</sup>The batter will be lumpy. <sup>8</sup>Heat a little oil in a skillet on medium heat. <sup>9</sup>When the oil is hot, pour the mixture and flatten each pancake a little with a spoon. <sup>10</sup>Turn only when the edges look done and bubbles begin to form on the top, which allows it to hold together. <sup>11</sup>Enjoy with pure maple syrup! <sup>12</sup>Makes nine 4-inch pancakes (serves 3-4 people).

<sup>13</sup>Olga's mom reminds her that 1 tablespoon (T) is the same as 3 teaspoons (t). <sup>14</sup>She also reminds Olga that four cups of liquid is the same as one quart.

### Questions

1. Give the number of the sentence that tells you how many friends are coming to the slumber party. \_\_\_\_\_. How many friends are coming? \_\_\_\_\_
2. If each person eats 3 pancakes, how many people can eat from this recipe? \_\_\_\_\_ Give the number of the sentence that provides the best evidence for your answer. \_\_\_\_\_
3. If each person including Olga eats 3 pancakes, how many pancakes should Olga make? \_\_\_\_\_
4. By how much should Olga multiply this recipe to have enough pancakes? Use a complete sentence.

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5. Change the recipe to make three pancakes for each of the twelve children.

- |                     |                     |
|---------------------|---------------------|
| _____ flour         | _____ baking soda   |
| _____ buttermilk    | _____ salt          |
| _____ sugar         | _____ vegetable oil |
| _____ baking powder | _____ eggs          |

6. What fraction of a dozen eggs will Olga need for the new recipe? \_\_\_\_\_

7. How many quarts of buttermilk will she need for the new recipe? \_\_\_\_\_ Give the number of the sentence that provides the best evidence for your answer. \_\_\_\_\_

8. How many tablespoons of baking powder will be needed for the new recipe? \_\_\_\_\_ Give the number of the sentence that provides the best evidence for your answer. \_\_\_\_\_


9. Olga mixed the flour with the buttermilk and then added the other ingredients. Did Olga follow the instructions in the recipe? \_\_\_\_\_ Use complete sentences to explain your thinking.

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Give the numbers of the two sentences that provide the best evidence for your answer. \_\_\_\_\_, \_\_\_\_\_

10.  When Olga turned her first pancake, the pancake fell apart! What do you think she might have done wrong? Use complete sentences to explain your thinking.

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Give the number of the sentence that provides the best evidence for your answer.

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Name \_\_\_\_\_

Divide.

1.  $.8 \overline{)64.0}$  <sup>80.</sup>

2.  $.5 \overline{)35}$

3.  $.3 \overline{)9}$

4.  $.12 \overline{)360}$

Check

$$\begin{array}{r} 80 \\ \times .8 \\ \hline 64.0 \end{array}$$

$$\begin{array}{r} 80. \\ \downarrow \\ .8 \overline{)64.0} \\ \underline{-64} \phantom{0} \\ 00 \\ \underline{-0} \\ 0 \end{array}$$

5.  $.25 \overline{)100}$

6.  $1.2 \overline{)48}$

7.  $9.6 \overline{)82.8}$

8.  $.23 \overline{)2.185}$

9.  $6.1 \overline{)7.93}$

10.  $5.3 \overline{)42.4}$

11.  $.17 \overline{)3.23}$

12.  $7.2 \overline{)40.32}$

**5<sup>th</sup> Grade**  
**NTI Days 40-42**  
**Answer Keys**

- 1 Which sentence in the article BEST supports the conclusion that many diseases need water to spread?
- (A) If soap and water is unavailable, you can disinfect hands with an alcohol-based hand sanitizer.
  - (B) Rub them down with a rag or paper towel that has been dampened with alcohol-based disinfectant.
  - (C) **But germs you pick up from touching a contaminated surface may begin reproducing as soon as they contact moist areas of our eyes, nose and mouth.**
  - (D) When it comes to the daily mail, dispose of envelopes and any papers you don't need as soon as you can, and then wash your hands.

- 2 Read the conclusion below.

*Staying away from others can help to stop the spread of diseases.*

Which sentence from the article provides the BEST support to the statement above?

- (A) You can protect yourself by practicing good hygiene.
  - (B) If you must touch a spoon someone else has handled (but not had in their mouth), do so, and then wash your hands.
  - (C) **If you must go out where plenty of people are present, whenever possible keep a cough's distance away from them — about a meter (or yard).**
  - (D) This means you might be able to infect people at high risk of serious disease, such as an elderly grandparent or a classmate with asthma.
- 3 What does the author do to build understanding of how to stay safe during an epidemic?
- (A) **She lists steps that people can take to slow the spread of COVID-19.**
  - (B) She compares the risk of COVID-19 with the risk of other diseases.
  - (C) She provides anecdotes about people who avoided COVID-19.
  - (D) She explains the risks people face from the spread of COVID-19.

- 4 Read the following selection from the article.

*Assume that sneezes or germy hands have left infectious residues on every surface that you have not personally cleaned or seen cleaned (especially outside your home).*

Why did the author include this idea?

- (A) It explains how COVID-19 is different than other types of diseases.
- (B) **It emphasizes that germs survive on surfaces even if they cannot be seen.**
- (C) It shows that everyone shares the responsibility of keeping surfaces sanitized.
- (D) It reveals that there are many different ways to stop the spread of COVID-19.

ction

the Introduction and charts. Explain to it sometimes readers come across words. A good reader will use context to be meaning of the word.  
**en include words and explanations that readers understand the meanings of words.**

lowing sentences on a chart or project whiteboard.

garden thrives in the summer, but the gin to die in the cool fall weather. (lives

lmy summer day, so I went to the park to warm and pleasant weather. (warm and

udents how to determine the meanings of lined words based on context clues in the nderline the context clues twice.

Practice

the sentences and Hint.  
 its complete the activity.

nts are finished, invite partners to air definitions and context clues.

ad Instruction  
 ing Context Clues

decide which word in parentheses best h sentence. Then ask them to explain xt clues helped them determine the

umid/bright) in the room that everyone ng. (humid)

amed during the (tragic, frightening) htening)

work, but the team (failed, managed) to he task. (managed)

Lesson 15  
 Using Context Clues

L.5.4a Use context (e.g., cause-effect relationships and comparisons) in text as a clue to the meaning of a word or phrase.

**Introduction** You can use **context clues** to figure out the meaning of an unfamiliar word. The chart below gives examples of different types of context clues.

Type of Clue	Example
Definition	<u>Superfoods</u> , or natural foods that may prevent disease, have become popular.
Cause/Effect	Some <u>superfoods</u> , such as blueberries and red beans, contain <u>antioxidants</u> . These can help remove harmful substances from the human body.
Comparison	Some experts look <u>dubiously</u> on claims about superfoods, but other experts believe strongly that these foods can improve health.

Context clues can also help you figure out words with more than one meaning. For example, the table below has two sentences with the word *source*. What does *source* mean in each sentence? You can use the underlined context clues to figure out which meaning of *source* is being used.

Sentence	Context Clues	Definition
Choosing high-sugar drinks can be a <u>source</u> of health <u>problems</u> .	A <u>problem</u> has a cause. Therefore, the <u>source</u> of a problem is its cause.	the cause of something
The <u>website</u> MyPlate.gov is a <u>source</u> for <u>facts</u> about food choices.	A <u>website</u> can have information such as <u>facts</u> . Therefore, a source is something that gives information.	something that gives information

The sentences before and after the sentence with an unfamiliar word can also hold context clues.

**Guided Practice** Determine the meanings of *fleeting*, *empirical*, and *panacea*. Then underline the words or phrases that helped you determine their meaning. Context clues are underlined.

Some fads are fleeting, but more than a few people feel that superfoods are here to stay. The idea of superfoods isn't new, but the amount of empirical information we have about them is. Scientific observations and tests offer some evidence that certain foods can help people stay healthy. Nobody claims that these foods are a panacea—nothing can guarantee perfect health or cure every disease—but they can be part of a sensible diet.

**HINT** The phrases *as a result of*, *because of*, and *thanks to* all signal cause-and-effect relationships. Words such as *but*, *too*, *also*, and *as well* as all indicate comparisons.

Independent Practice

For numbers 1 and 2, read the paragraph. Then answer the questions.

For centuries, people in coastal areas of China and Japan have harvested a superfood found in marine environments. Recent studies show that eating seaweed protects against infection. It also might reduce the risk of serious diseases and extend peoples' life spans. If true, these would be important benefits.

- 1 What does the word marine mean in this paragraph?  
 A very nutritious  
 B dark blue in color  
 C  having to do with the ocean  
 D member of the armed forces

- 2 Which two words from the paragraph help you understand the meaning of marine?  
 A "China" and "Japan"  
 B  "coastal" and "seaweed"  
 C "centuries" and "people"  
 D "superfood" and "studies"

For numbers 3 and 4, read the paragraph. Then answer the questions.

Closer to home, you can find superfoods right in your garden or local store. Think "crisp and crunchy." Cabbage, broccoli, cauliflower, and kale detoxify harmful substances. As a result, they may help to prevent some forms of cancer. These veggies also are low in calories and have lots of vitamins A, C, and K.

- 3 What does the word detoxify mean in this paragraph?  
 A to move in a wide circle  
 B to chew food slowly  
 C to make a difficult decision  
 D  to remove bad effects

- 4 Which two words from the paragraph help you understand the meaning of detoxify?  
 A "crisp" and "crunchy"  
 B  "prevent" and "cancer"  
 C "veggies" and "substances"  
 D "calories" and "vitamins"

Day 40

## 1—The Train Ride, p. 2

- 1, 2, 4, 5, 10, and 20. Sentence 12.
- Mrs. Winterbloom, Mrs. Applecrumb and Ms. Twinkle. Their seat numbers are 5, 10, and 20, which are factors of 20.
- No. Mr. Lyons is in seat 19, and 19 is not a factor of 20. (19 goes into 20 once with remainder 1.)
- a. Sentence 15.
- Mr. Papas and Ms. Kamen. (Mr. Papas is in seat 6 and Ms. Kamen is in seat 27. 6 and 27 are multiples of 3. 3 is a factor of both 6 and 27.)
- One is a factor of every number because 1 goes into any number OR Every number is divisible by 1.
- d. (Everyone on the train should get a ride because every number is a multiple of 1, or 1 is a factor of every number.)

Name \_\_\_\_\_ Skill: Multiplying Decimals

Multiply.

1. $\begin{array}{r} 5.2 \\ \times 1.8 \\ \hline 9.36 \end{array}$	2. $\begin{array}{r} 2.2 \\ \times 4.4 \\ \hline 9.68 \end{array}$	3. $\begin{array}{r} 1.3 \\ \times 1.0 \\ \hline 1.3 \end{array}$	4. $\begin{array}{r} 6.4 \\ \times 2.5 \\ \hline 16 \end{array}$	5. $\begin{array}{r} 5.4 \\ \times 1.3 \\ \hline 7.02 \end{array}$
6. $\begin{array}{r} 10.5 \\ \times 6.6 \\ \hline 69.3 \end{array}$	7. $\begin{array}{r} .12 \\ \times 3.7 \\ \hline .444 \end{array}$	8. $\begin{array}{r} 7.1 \\ \times .25 \\ \hline 1.775 \end{array}$	9. $\begin{array}{r} 16.2 \\ \times 1.1 \\ \hline 17.82 \end{array}$	10. $\begin{array}{r} 6.6 \\ \times 1.5 \\ \hline 9.9 \end{array}$
11. $\begin{array}{r} 2.8 \\ \times 9.9 \\ \hline 27.72 \end{array}$	12. $\begin{array}{r} 5.20 \\ \times .21 \\ \hline 1.092 \end{array}$	13. $\begin{array}{r} 7.54 \\ \times 2.77 \\ \hline 20.8858 \end{array}$	14. $\begin{array}{r} 2.0 \\ \times 2.1 \\ \hline 4.2 \end{array}$	15. $\begin{array}{r} 4.44 \\ \times .01 \\ \hline .0444 \end{array}$

~~16.  $.34 \times .12 = .0408$       17.  $6.1 \times 2.5 = 15.25$~~

~~18.  $45.5 \times 4.6 = 209.3$       19.  $5.6 \times 7.3 = 40.88$~~

Total Problems 19 Problems Correct     

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- 1 Look at the photograph in the section "Rights Of A Citizen."  
Which selection from the article is BEST illustrated by the photograph?
- (A) Every citizen has the same rights no matter their background, culture or religion. To protect our democracy, all citizens should know what rights they have and apply them.
  - (B) **This includes freedom of speech, freedom to meet in a group peacefully, and the freedom to protest if you think the government has done something wrong.**
  - (C) You can vote in federal, state and city elections to choose your leaders. The right to vote stops politicians from becoming too powerful, by keeping power in the hands of citizens.
  - (D) Contribute what you can to the well-being of the community. Go to town hall meetings, volunteer to help others, join a local parent-teacher group, or run for public office.
- 2 Which option accurately compares and contrasts HOW the top two images and the bottom two images impact the reader's understanding of citizens' rights and responsibilities?
- (A) The first two images show the right of citizens to peacefully protest, and the bottom two images show the responsibility to take part in government.
  - (B) The first two images show the responsibility of citizens to volunteer in their communities, and the bottom two images show how to become government leaders.
  - (C) The first two images show how citizens can apply to work for the government, and the bottom two images show the responsibilities when they have those jobs.
  - (D) **The first two images show how citizens can participate as part of a group, and the bottom two images show how individuals can make a difference.**
- 3 Which sentence from the article BEST supports the idea that citizens will have rights only if they actively protect them?
- (A) People accused of a crime have the right to a speedy and fair trial, where a jury of citizens decide the verdict.
  - (B) The United States lets you choose your own path in life, so that you can set your own goals.
  - (C) **The Constitution may get challenged by people from other countries, but U.S. citizens must keep defending its principles.**
  - (D) Today, all our soldiers and sailors are volunteers, but there are also ways to defend our country by having jobs that do not ask you to fight.

- 4 Read the sentence from the second paragraph of the article.

*Former Supreme Court Justice Louis Brandeis once said, "The only title in our democracy superior to that of President [is] the title of citizen."*

Which sentence from the article provides further support for Brandeis' claim?

- (A) Americans can speak and act as they wish, as long as it does not hurt others or stop others from speaking freely.
- (B) **The right to vote stops politicians from becoming too powerful, by keeping power in the hands of citizens.**
- (C) U.S. citizens can apply for a job working for the government, which can be a rewarding career serving the American people.
- (D) U.S. citizens should learn about the candidates running for office and know about problems in their city, state and country.



# Synonyms and Antonyms

L.5.5c Use the relationships between particular words (e.g., synonyms, antonyms) to better understand each of the words.

## Introduction

Words in English can have meanings that are similar or opposite. If you know how two words are related, you can use the meaning of a familiar word to figure out what an unfamiliar word means.

- A **synonym** is a word that has the same or nearly the same meaning as another word.

Spain established colonies in North America, and other European countries founded colonies as well.

- An **antonym** is a word that has the opposite meaning of another word.

In 1607, the English started their first permanent settlement in North America. Earlier English colonies had been temporary instead.

- Words and phrases such as *but*, *instead of*, *not*, *rather than*, and *unlike* are clues that a sentence or paragraph might have words that are antonyms.

Colonists often struggled to survive and not to perish.

Survival meant overcoming rather than surrendering to challenges.

## Guided Practice

Each sentence contains both a synonym and an antonym of the underlined word. Find each one, and then write them on the lines below the sentence.

- 1 In Jamestown, for example, colonists faced severe winters—harsh and quite unlike the mild ones they had known in England.  
synonym: harsh      antonym: mild

- 2 Mosquitoes brought illness, and water from the river carried disease, so only a few of the colonists kept their health.  
synonym: illness      antonym: health

- 3 But the colonists soon acquired new skills, shed old ways of thinking, and gained an understanding of their new home.  
synonym: acquired      antonym: shed

- 4 In time, the colony that had threatened to become a disaster like the others instead avoided failure and became a success.  
synonym: disaster      antonym: success

**TIP** Words that are synonyms of each other have nearly the same meaning as each other.

## Independent Practice

For numbers 1–4, answer the questions.

- 1 Read the sentence below.

The colonists planted crops that were strange to them, plants that were unlike the comfortably familiar foods that were common in Europe.

Which word in the sentence is an antonym of familiar?

- A planted
- B strange
- C common
- D comfortably

- 2 Read the sentence below.

Soon they began concentrating on ways to make money, focusing their efforts on plants and ignoring other possible sources of riches.

Which word in the sentence is a synonym of concentrating?

- A focusing
- B ways
- C efforts
- D ignoring

- 3 Read the sentence below.

The colonists tried growing valuable crops for sale, and while many plants were worthless, the tobacco plant proved profitable.

Which word in the sentence is an antonym of profitable?

- A valuable
- B sale
- C worthless
- D tobacco

- 4 Read the sentence below.

By 1620, tobacco was the major crop in Jamestown's economy, the chief export that outsold all other, minor goods.

Which word in the sentence is a synonym of chief?

- A minor
- B crop
- C export
- D major

## Introduction

- Read aloud the Introduction and examples. Explain to students that many words in the English language have words that are related. One way two words can be related is by having similar or opposite meanings.

**Words that have similar meanings are synonyms and words that have opposite meanings are antonyms.**

- Write the following sentences on a chart or project them on a whiteboard.

Would you like your usual order or something different? (*antonym: different; typical*)

The encore was the most thrilling part of the exhilarating show. (*synonym: thrilling; exciting*)

- Model for students how to identify the synonym or antonym for each underlined word. Then use the synonym or antonym to define the word.

## Guided Practice

- Read aloud the sentences.
- Have students complete the activity.
- Remind students that synonyms have similar meanings, and antonyms have opposite meanings.

## E.L. English Language Learners Identify Synonyms and Antonyms

Students may need support in identifying English synonyms and antonyms. Explain that they can first determine the meanings of the words by drawing or acting them out. Then they can determine whether the meanings are similar or opposite.

bulky/light (*antonyms*)  
swift/rapid (*synonyms*)  
shout/cheer (*synonyms*)  
beneath/above (*antonyms*)

Day  
41

### 10—Off to the Movies!, p. 24

1. \$15.00.  $3 \times \$5.00$  Sentences 1 and 2.
2. \$36.50.  $\$16 + \$14 + \$6.50$
3. \$7.00.  $\$3.50 + \$2 + \$1.50$ . Sentence 7.
4. \$24.00.  $\$15 + \$7 + \$2$
5. \$12.50.  $\$36.50 - \$24$
6. Small. There was \$12.50 left and Amy bought the \$4.50 medium popcorn.  
Then there was \$8 left, so they each bought a small popcorn at \$4 each.
7. No. They would still have been short \$1. Adding \$3 to what they had before they bought the two small popcorns would have given them \$11. Two extra large popcorns cost \$12.

Name \_\_\_\_\_ Skill: Dividing Decimals

Divide.

1. $2 \overline{) 4.22}$	2. $7 \overline{) .56}$	3. $6 \overline{) .6}$	4. $4 \overline{) 2.4}$
5. $5 \overline{) .25}$	6. $2 \overline{) 4.7}$	7. $7 \overline{) .56}$	8. $5 \overline{) .173}$
9. $14 \overline{) .087}$	10. $24 \overline{) .72}$	11. $46 \overline{) .0051}$	12. $67 \overline{) 4.1}$

~~13.  $38.0 \div 2 = 19.3$~~       ~~14.  $42.3 \div 3 = 14.1$~~

~~15.  $.6566 \div 67 = .0098$~~       ~~16.  $.7255 \div 5 = .1451$~~

~~17.  $166.4 \div 52 = 3.2$~~       ~~18.  $166.0 \div 10 = 16.6$~~

Total Problems 18 Problems Correct \_\_\_\_\_

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# ANSWER KEY (continued)

Day 42  
Lesson 17

## Lesson 11 (page 27)

1. D      3. D  
2. A      4. C

5. sample answer: *Komodo dragons are endangered. There are only 350 breeding females. As the human population grows, there is less land for the Komodo dragons. There is less food because humans eat some of the same food.*

## Lesson 12 (page 29)

1. A      3. B  
2. B      4. C

5. sample answer: *She woke up in a room with a dirt floor and adobe walls. She had to milk goats. Traders came in wagons pulled by mules. Her family rode to the dance in a wagon.*

## Lesson 13 (page 31)

1. B      3. A  
2. A      4. D

5. sample answer: *His father taught him to believe in his own intelligence and worth. His master let him learn to read and write. He read books about freedom and equality.*

## Lesson 14 (page 33)

1. C      3. D  
2. D      4. C

5. sample answer: *Mary Hayes followed her husband to war. She carried water onto the battlefield to help cool off the cannons. When her husband collapsed on the battlefield, she took over for him.*

## Lesson 15 (page 35)

1. A      3. D  
2. C      4. C

5. sample answer: *They ate deer meat and fowl. They probably ate fish, clams, and lobsters. They cooked Indian corn into porridges, pancakes, and bread. They grew carrots, turnips, cabbages, and spinach.*

## Lesson 16 (page 37)

1. A      3. C  
2. A      4. D

5. sample answer: *She laughed and said she couldn't imagine Cubullin beating Finn. She told Cubullin that Finn lifted the house every day. She told Cubullin that Finn lifted the mountain every day. She told Cubullin that the iron-hard bread was Finn's favorite.*

## Lesson 17 (page 39)

1. B      3. A  
2. D      4. B

5. sample answer: *Hunting buffalo on horseback was dangerous. If a horse fell, a rider could be trampled. Some Plains Indians used spears instead of bows and arrows when they hunted on horseback.*

## Lesson 18 (page 41)

1. C      3. A  
2. D      4. C

5. sample answer: *It weighed thirty-four tons. The Inuit called it a mountain of iron. Peary renamed it Ahnighito. It is now in the American Museum of Natural History in New York.*

## Lesson 19 (page 43)

1. B      3. D  
2. C      4. B

5. sample answer: *She thinks that protecting the environment is a part of bringing peace to the world because many wars are fought to gain control of natural resources.*

## Lesson 20 (page 45)

1. C      3. D  
2. A      4. D

5. sample answer: *The town will give residents blue plastic bins. They can put paper, glass, plastic, and metal in the bins. They can put the bins out every other week when they put out their trash.*

Lesson 18  
Figurative Language

L.5.5a Interpret figurative language, including similes and metaphors, in context

**Introduction** Writers use **figurative language**, including similes and metaphors, to help readers imagine what one thing is like by comparing it to something else.

- A **simile** compares two or more things using the words *like* or *as*. The table below contains two sentences with similes. It then explains what those similes mean.

Simile	What It Means
Noah stood as still as a <u>rabbit</u> trying not to be seen.	Noah stood very still.
The <u>world</u> around him was like a <u>beautiful movie</u> .	Noah saw beautiful things happening all around him.

- A **metaphor** compares two or more things *without* using the words *like* or *as*. In the metaphor below, the clouds are compared to sailing ships.

Metaphor	What It Means
White <u>clouds</u> were <u>ships sailing</u> across the sky.	The clouds moved like ships across the sky.

**Guided Practice** Find the simile or metaphor in each sentence. Underline the two things being compared. Then write the meaning of the simile or metaphor.

- 1 Sunbeams were golden threads piercing the clouds.  
Meaning: Narrow rays of sunlight shone through the clouds.
- 2 Mountain goats leaped like dancers from rock to rock.  
Meaning: Mountain goats leaped gracefully.
- 3 The butterflies drifted as lazily as falling leaves.  
Meaning: Butterflies flew slowly and gently.
- 4 Bright flowers were jewels gleaming in the sunlight.  
Meaning: The colorful flowers were bright.

**HINT** After you find the two things being compared, ask yourself: How are they like? Use your answer to figure out what each simile or metaphor means.

**Independent Practice**

For numbers 1-5, choose the correct meaning of the underlined simile or metaphor.

- 1 The landscape was a patchwork quilt of sights and sounds.
  - A The quilt showed a variety of sights and sounds.
  - B The quilt had a picture of the landscape on it.
  - C The landscape had a blanket covering it.
  - D The landscape had a variety of sights and sounds.
- 2 A waterfall gushed like a faucet down the side of the mountain.
  - A The waterfall was powerful.
  - B The waterfall was narrow.
  - C A faucet was on the mountain.
  - D A faucet made the waterfall.
- 3 The brook gurgled as happily as a well-fed baby.
  - A A baby made pleasant sounds near the brook.
  - B The brook made a pleasant sound.
  - C There were many fish in the brook.
  - D The well-fed baby sounded happy.
- 4 Croaking frogs sounded as loud as a marching band.
  - A The frogs marched as they made croaking sounds.
  - B The frogs were very musical.
  - C The frogs croaked very loudly.
  - D The marching band sounded like loud croaking.
- 5 Noah was a sponge, soaking up the landscape's sights and sounds.
  - A Noah was good at cleaning.
  - B Noah fell into the water and got soaked.
  - C Noah was thirsty as he watched and listened.
  - D Noah looked at and listened to everything.

**Introduction**

- Read aloud the Introduction and examples. Explain to students that authors use similes and metaphors to make their writing more interesting.

**Figurative language requires readers to use their imaginations. A simile or metaphor helps you to imagine what something or someone is like.**

- Write the following sentences on a chart or project them on a whiteboard.

His room is as cluttered as a garbage dump.  
(He has a messy room.)

Peter ran like a cheetah around the track.  
(Peter ran fast.)

The paperwork is a mountain on her desk.  
(There is a lot of paperwork.)

- Model for students how to identify what is being compared in each sentence and then determine the meaning of the simile or metaphor.

**Guided Practice**

- Read aloud the sentences and Hint.
- Have students complete the activity.
- When students finish, invite partners to compare and discuss their definitions.

**Extend Learning**  
Practice Using Similes and Metaphors

Ask students to rewrite the sentences to include a simile or metaphor.

- 1 Lily is busy. (Lily is as busy as a bee.)
- 2 Ben is shaking. (Ben is a trembling leaf.)
- 3 Amy is hungry. (Amy is as hungry as a wolf.)
- 4 Jeff moves quietly. (Jeff moves like a mouse.)

Day  
42

### 16—The Best Pancake Recipe, p. 36

1. Sentence 1. 11 friends.
2. 3. Sentence 12.
3. 36 pancakes. (12 people  $\times$  3 = 36 pancakes)
4. Olga should multiply this recipe by 4.
5. 4c flour, 4c buttermilk (or 1 quart),  
5  $\frac{1}{3}$  T sugar, 4t baking powder, 2t  
baking soda, 2t salt, 4T vegetable oil,  
4 eggs.
6.  $\frac{1}{3}$  of a dozen.
7. 1 quart. Sentence 14.
8. 1  $\frac{1}{3}$ . Sentence 13.
9. No. She was supposed to combine the  
dry ingredients first and then the wet  
ingredients next. Sentences 4 and 5.
10. She turned the pancake too soon.  
Sentence 10.

Name \_\_\_\_\_ Skill: Dividing Decimals

Divide.

1. $\begin{array}{r} 80 \\ .8 \overline{)64} \end{array}$	2. $\begin{array}{r} 70 \\ .5 \overline{)35} \end{array}$	3. $\begin{array}{r} 30 \\ .3 \overline{)9} \end{array}$	4. $\begin{array}{r} 3,000 \\ .12 \overline{)360} \end{array}$
5. $\begin{array}{r} 400 \\ .25 \overline{)100} \end{array}$	6. $\begin{array}{r} 40 \\ 1.2 \overline{)48} \end{array}$	7. $\begin{array}{r} 8,625 \\ 9.6 \overline{)82.8} \end{array}$	8. $\begin{array}{r} 9.5 \\ .23 \overline{)2.185} \end{array}$
9. $\begin{array}{r} 1.3 \\ 6.1 \overline{)7.93} \end{array}$	10. $\begin{array}{r} 8 \\ 5.3 \overline{)42.4} \end{array}$	11. $\begin{array}{r} 19 \\ .17 \overline{)3.23} \end{array}$	12. $\begin{array}{r} 5.6 \\ 7.2 \overline{)40.32} \end{array}$

~~13.  $64 \div .4 = 160$~~       ~~14.  $152 \div .8 = 190$~~

~~15.  $4.9 \div .7 = 7$~~       ~~16.  $.63 \div .3 = 2.1$~~

~~17.  $15.2 \div .19 = 80$~~       ~~18.  $1.365 \div 2.1 = .65$~~

Total Problems 18 Problems Correct     

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