



Objective: REVIEW

## Percent and Convert Measurement

A percent is a ratio that means “per hundred.” The symbol for percent is %. A percent can be written as a fraction with a denominator of 100 or as a decimal. To write a percent as a decimal, divide the percent by 100 and remove the percent sign. Dividing by 100 is the same as moving the decimal point two places to the left. For example,  $45\% = \frac{45}{100} = 0.45$ .

The tables below show some conversions for units of length in both the customary system and the metric system.

### Customary Units of Length

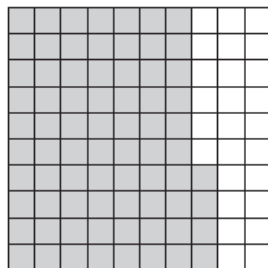
<b>1 foot (ft) = 12 inches (in.)</b>
<b>1 yard (yd) = 3 feet</b>
1 yard = 36 inches
<b>1 mile (mi) = 5,280 feet</b>
1 mile = 1,760 yards

### Metric Units of Length

<b>1 centimeter (cm) = 10 millimeters (mm)</b>
<b>1 meter (m) = 100 centimeters</b>
1 meter = 1,000 millimeters
<b>1 kilometer (km) = 1,000 meters</b>



1. What percent of the grid is shaded?



- A. 0.74%
- B. 7.4%
- C. 74%
- D. 740%
2. Which fraction is equal to 30%?
- A.  $\frac{3}{100}$
- B.  $\frac{1}{30}$
- C.  $\frac{3}{10}$
- D.  $\frac{1}{3}$
3. Which decimal is equal to 42%?
- A. 0.42
- B. 4.2
- C. 42
- D. 420
4. There are 25 students performing in the holiday concert. Of the students, 11 are boys. What percent of the students are boys?
- A. 44%
- B. 48%
- C. 52%
- D. 56%
5. What is 38% of 560?
- A. 21.28
- B. 212.8
- C. 213
- D. 224
6. 435 is 15% of what number?
- A. 6.525
- B. 65.25
- C. 2,900
- D. 29,000

7. Cecilia created 2.5 liters of a chemical mixture for an experiment. Saline solution accounted for 12.5% of the mixture. How many liters of saline solution were in the mixture?

- A. 0.3125 liter
- B. 2.1875 liters
- C. 3.125 liters
- D. 31.25 liters

8. As part of a class project, Mesut collected \$126 in donations for a local hospice. That amount was 7% of the total amount collected by the class. How much money did the class collect in all?

- A. \$167.40
- B. \$180
- C. \$1,674
- D. \$1,800

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9. Last year, a state university received 3,560 applications from boys. Of those applications, 35% were from boys who lived in other states.

A. How many applications did the university receive from boys who lived in other states? Show your work.

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B. Applications to the university from boys represented 40% of all applications. How many applications did the university receive in all? Explain how you found your answer.

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10. Circle every true relationship.

- A.  $14\% = 0.14$
- B.  $80\% = \frac{8}{100}$
- C.  $65 = 65\%$
- D.  $\frac{21}{100} = 0.21$
- E.  $0.99 = 99\%$
- F.  $76\% = \frac{76}{100}$
- G.  $\frac{40}{100} = 0.04$

11. Draw a line from each percent to its equivalent fraction.

- |        |   |   |                |
|--------|---|---|----------------|
| A. 90% | • | • | $\frac{1}{2}$  |
| B. 12% | • | • | $\frac{9}{10}$ |
| C. 50% | • | • | $\frac{3}{25}$ |
| D. 75% | • | • | $\frac{3}{4}$  |

12. Charlie's school needed to raise \$6,000 for a new wrestling mat. Circle the number that shows the dollar equivalent of the given percent.

	<table border="1"><tbody><tr><td>\$1,500</td></tr><tr><td>\$2,500</td></tr><tr><td>\$3,000</td></tr></tbody></table>	\$1,500	\$2,500	\$3,000		<table border="1"><tbody><tr><td>\$2,000</td></tr><tr><td>\$2,400</td></tr><tr><td>\$4,000</td></tr></tbody></table>	\$2,000	\$2,400	\$4,000		<table border="1"><tbody><tr><td>\$4,800</td></tr><tr><td>\$5,100</td></tr><tr><td>\$8,500</td></tr></tbody></table>	\$4,800	\$5,100	\$8,500
\$1,500														
\$2,500														
\$3,000														
\$2,000														
\$2,400														
\$4,000														
\$4,800														
\$5,100														
\$8,500														
25%:		40%:		85%:										

13. Is each number equal to 45%? Select Yes or No.

- A. 0.45     Yes     No
- B. 45     Yes     No
- C.  $\frac{45}{100}$      Yes     No
- D.  $\frac{45}{10}$      Yes     No



- Dean's car weighs  $1\frac{1}{4}$  tons. How many pounds does his car weigh?
  - 2,000 lb
  - 2,125 lb
  - 2,375 lb
  - 2,500 lb
- A wooden board is 3 yards 1 foot long. Which shows an equivalent length?
  - 37 ft
  - 31 ft
  - 10 ft
  - 7 ft
- A bottle of water has a capacity of 750 milliliters. Which is an equivalent measure in liters?
  - 7,500 L
  - 75 L
  - 7.5 L
  - 0.75 L
- A package weighs 4.25 kilograms. How many grams does the package weigh?
  - 0.0425 g
  - 425 g
  - 4,250 g
  - 42,500 g
- Julie's cell phone is 9 centimeters long. How many millimeters long is her cell phone?
  - 0.9 millimeters
  - 90 millimeters
  - 900 millimeters
  - 9,000 millimeters
- Amy needs to fill a barrel with  $4\frac{1}{4}$  gallons of water. She only has a quart container. How many times will she need to fill the quart container in order to get  $4\frac{1}{4}$  gallons of water into the barrel?
  - 34
  - 20
  - 17
  - 16

7. Michael will be running a 15-mile road race this weekend. How many feet will he run?

- A. 26,400 feet
- B. 26,700 feet
- C. 78,900 feet
- D. 79,200 feet

8. Melissa made 164 fluid ounces of lemonade for a party. How many cups of lemonade did Melissa make?

- A.  $10\frac{1}{4}$  cups
- B.  $20\frac{1}{4}$  cups
- C.  $20\frac{1}{2}$  cups
- D. 21 cups

9. Brendan's dog has a mass of 25,700 grams.

A. What is the dog's mass in milligrams? Show your work.

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B. What is the dog's mass in kilograms? Explain how you found your answer.

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10. A shuffleboard table is 22 feet long. Circle every measure that is equivalent to the table's length.

- A.  $7\frac{1}{3}$  yd
- B. 2.2 cm
- C. 1 ft 10 in.
- D. 7 yd 1 ft
- E. 220 mm
- F. 66 yd
- G. 264 in.





**LESSON SE 2b**



**Objective**

The table shows the scores that several students received on a quiz. Select True or False for each statement.

Student	Score (Fraction)	Score (Percent)
Venell	$\frac{16}{20}$	?
Kari	$\frac{13}{20}$	?
Fia	?	75%
Jeremy	?	95%

- A. Venell's score was 16%.     True     False
- B. Kari's score was 65%.     True     False
- C. Fia's score was  $\frac{15}{20}$ .     True     False
- D. Jeremy's score was  $\frac{19}{20}$ .     True     False

The heights of several flowers and trees in Tina's yard are given in the tiles below. Compare each height to 1 meter. Write each measurement in the correct box.

25 cm	9,000 mm	40,000 cm	0.02 km	790 mm	0.0008 km
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Less than 1 Meter	Greater than 1 Meter