

NAME

DATE

PERIOD

Unit 3, Lesson 15: Finding This Percent of That

Let's solve percentage problems like a pro.

15.1: Number Talk: Decimals

Find the value of each expression mentally.

$$(0.23) \cdot 100$$

$$50 \div 100$$

$$145 \cdot \frac{1}{100}$$

$$7 \div 100$$

15.2: Audience Size

A school held several evening activities last month—a music concert, a basketball game, a drama play, and literacy night. The music concert was attended by 250 people. How many people came to each of the other activities?

1. Attendance at a basketball game was 30% of attendance at the concert.
2. Attendance at the drama play was 140% of attendance at the concert.
3. Attendance at literacy night was 44% of attendance at the concert.

NAME

DATE

PERIOD

Are you ready for more?

50% of the people who attended the drama play also attended the music concert. What percentage of the people who attended the music concert also attended the drama play?

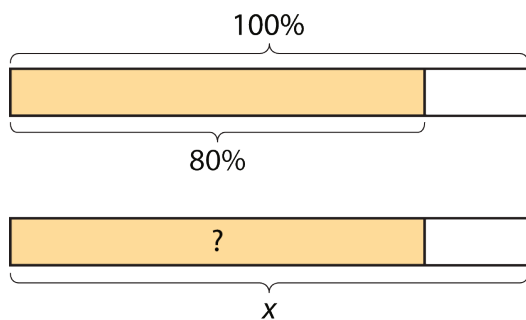
15.3: Everything is On Sale

During a sale, every item in a store is 80% of its regular price.

1. If the regular price of a T-shirt is \$10, what is its sale price?
2. The regular prices of five items are shown here. Find the sale price of each item.

	item 1	item 2	item 3	item 4	item 5
regular price	\$1	\$4	\$10	\$55	\$120
sale price					

3. You found 80% of many values. Was there a process you repeated over and over to find the sale prices? If so, describe it.



4. Which of the following expressions could be used to find 80% of x ? Be prepared to explain your reasoning.

NAME

DATE

PERIOD

$$\frac{8}{100} \cdot x$$

$$\frac{8}{10} \cdot x$$

$$\frac{8}{5} \cdot x$$

$$80 \cdot x$$

$$(0.8) \cdot x$$

$$\frac{80}{100} \cdot x$$

$$\frac{4}{10} \cdot x$$

$$\frac{4}{5} \cdot x$$

$$8 \cdot x$$

$$(0.08) \cdot x$$

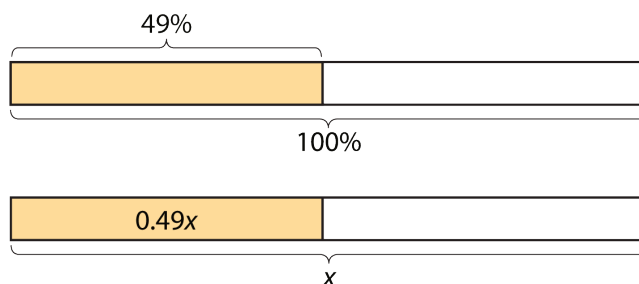
NAME

DATE

PERIOD

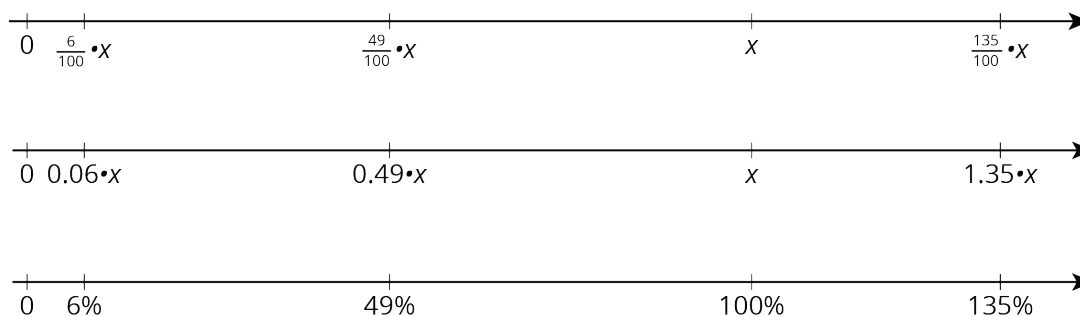
Lesson 15 Summary

To find 49% of a number, we can multiply the number by $\frac{49}{100}$ or 0.49.



To find 135% of a number, we can multiply the number by $\frac{135}{100}$ or 1.35.

To find 6% of a number, we can multiply the number by $\frac{6}{100}$ or 0.06.



In general, to find $P\%$ of x , we can multiply:

$$\frac{P}{100} \cdot x$$

NAME

DATE

PERIOD

Unit 3, Lesson 15: Finding This Percent of That

- To find 40% of 75, Priya calculates $\frac{2}{5} \cdot 75$. Does her calculation give the correct value for 40% of 75? Explain or show how you know.
 - If x represents a number, does $\frac{2}{5} \cdot x$ always represent 40% of that number? Explain your reasoning.
- Han spent 75 minutes practicing the piano over the weekend. For each question, explain or show your reasoning.
 - Priya practiced the violin for 152% as much time as Han practiced the piano. How long did she practice?
 - Tyler practiced the clarinet for 64% as much time as Han practiced the piano. How long did he practice?
- Last Sunday 1,575 people visited the amusement park. 56% of the visitors were adults, 16% were teenagers, and 28% were children ages 12 and under. Find the number of adults, teenagers, and children that visited the park.
- Order from greatest to least:
 - 55% of 180
 - 300% of 26

NAME _____

DATE _____

PERIOD _____

- 12% of 700

5. Complete each statement.

a. 20% of 60 is _____

d. 50% of 90 is _____

b. 25% of _____ is 6

e. 10% of _____ is 7

c. _____% of 100 is 14

f. 30% of 70 is _____

(from Unit 3, Lesson 14)

6. A shopper needs 24 sandwich rolls. The store sells identical rolls in 2 differently sized packages. They sell a six-pack for \$5.28 and a four-pack for \$3.40. Should the shopper buy 4 six-packs or 6 four-packs? Explain your reasoning.

(from Unit 3, Lesson 9)

7. On a field trip, there are 3 chaperones for every 20 students. There are 92 people on the trip. Answer these questions. If you get stuck, consider using a tape diagram.

a. How many chaperones are there?

b. How many children are there?

(from Unit 2, Lesson 15)