

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.

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?

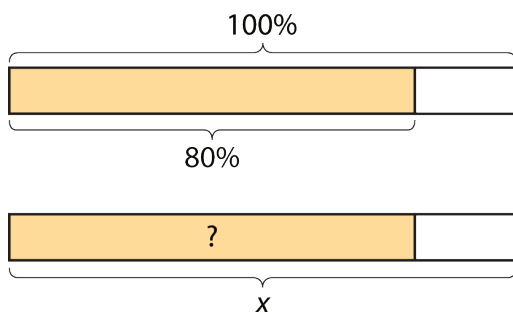
15.3: Everything is On Sale

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

- If the regular price of a T-shirt is \$10, what is its sale price?
- 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					

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



- Select **all** of the expressions that could be used to find 80% of x . Be prepared to explain your reasoning.

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

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

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

$$80 \cdot x$$

$$(0.8) \cdot x$$

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

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

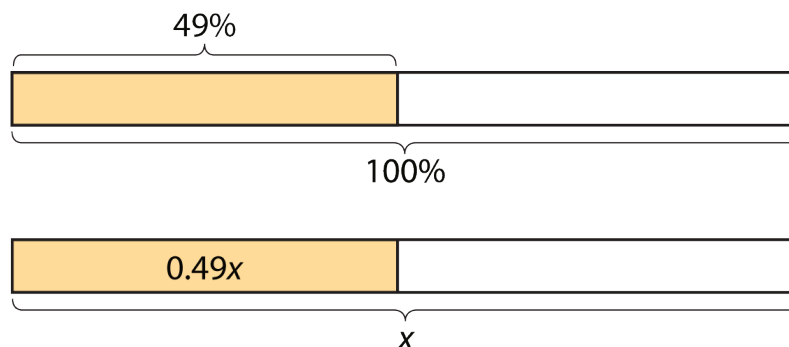
$$\frac{4}{5} \cdot x$$

$$8 \cdot x$$

$$(0.08) \cdot x$$

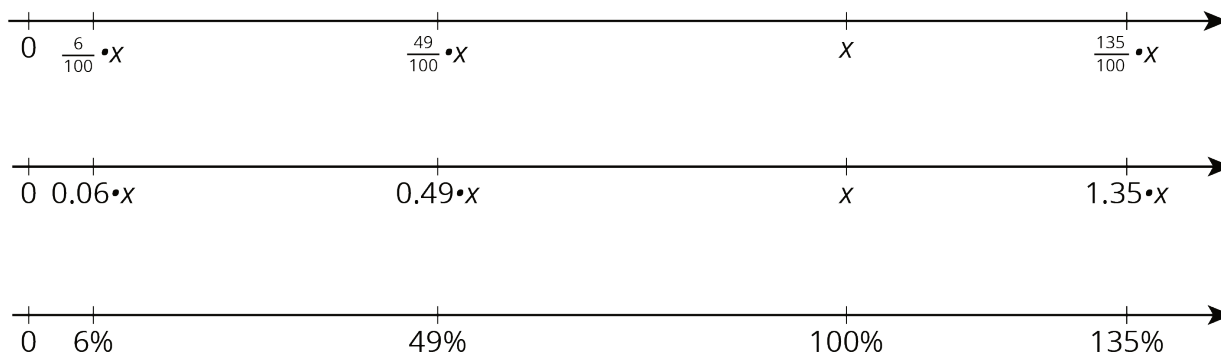
Lesson 15 Summary

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:

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