



Lesson Notes

7.6

NAME _____

Module 7 Ratio, Proportion, and Percent
Lesson 6 Using Percent Equations

Lesson Objectives

- Find a percent of a given number.
- Find what percent one number is of another number.
- Find a number when a percent of it is given.
- Use equations to solve percent problems.

Subtopic 1 Find the Percent of a Number

- 1** There are 250 seats at Sunburst Theater. If 30% of the seats are filled, how many seats are filled?

What is 30% of 250?

$$\frac{?}{250} = \frac{30}{100}$$

$$\frac{75}{250} = \frac{30 \times 2.5}{100 \times 2.5}$$

75 of the seats are filled.

- 2** Tia sold a baseball card for 300% of what she paid for it. She paid \$12 for the card. For how much did Tia sell the card?

What is 300% of 12?

$$3 \times 12$$

$$36$$

Tia sold the card for \$36.

Subtopic 2**Find What Percent One Number Is of Another Number**

A variable is a letter or other symbol that represents a number or other mathematical value.

If it represents a number, it is also called a numerical variable.

3

Sean had \$140. After buying new sunglasses, he has \$112 left. What percent of his money did Sean spend on sunglasses?

$$\begin{aligned} \text{Amount spent:} \\ \$140 - \$112 = \$28 \end{aligned}$$

What percent of 140 is 28?

$$\begin{aligned} \frac{28}{140} &= \frac{n}{100} \\ \frac{28 \div 1.4}{140 \div 1.4} &= \frac{20}{100} \end{aligned}$$

Sean spent 20% of his money on sunglasses.

4

What percent of 50 is 75?

$$\frac{75}{50} = \frac{z}{100}$$

$$\frac{75 \times 2}{50 \times 2} = \frac{z}{100}$$

$$\frac{75}{50} = \frac{150}{100}$$

150%

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Subtopic 3 Find a Number When a Percent of It Is Given

5 Dino spent 15% of his money to buy books. The books cost \$30. How much money did Dino have before he bought the books?

15% of what number is 30?

$$\frac{30}{m} = \frac{15}{100}$$

$$\frac{30}{200} = \frac{15 \times 2}{100 \times 2}$$

Dino had \$200 before he bought books.

6 Seven-hundred people visited a museum Saturday. This was 200% of the number of people who visited Friday. How many people visited the museum Friday?

200% of what number is 700?

$$200\% \times n = 700$$

$$2 \times n = 700$$

$$n = 700 \div 2$$

$$n = 350$$

On Friday, 350 people visited the museum.

