

## Percent Word Problems: What Number is Missing?

WP 1

**Instructions:** For each of these word problems involving percents, figure out which number is missing. Is it the Part, the Total or the Percent? Circle the missing number on the equation below the problem. You do NOT need to actually solve these word problems.

- 1 A coconut tree has 12 coconuts on it. If 25% of the coconuts fell to the ground, how many fell?

$$\frac{3}{12} = \frac{1}{4}$$

$$\frac{25}{100} = \frac{1}{4}$$

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{X}{12} = \frac{25\%}{100}$

- 2 A rain barrel can hold 50 gallons of water. If there are 32 gallons inside of it, what percent of the barrel is full?

$$\frac{32}{50} = \frac{X}{100}$$

$$\frac{X}{12} = \frac{25}{100}$$

$$12(25) = X(100)$$

$$\frac{300}{100} = \frac{100X}{100}$$

$$3 = X$$

THE AMOUNT INSIDE

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{32}{50} = \frac{X}{100}$

- 3 A worker has installed 65% of the tiles for a tile floor. If they installed 120 tiles so far, how many tiles are there total?

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{120}{X} = \frac{65\%}{100}$

- 4 One week, seventy-two percent of the animals that came to a veterinary hospital were dogs. If there were 230 animals total, how many were dogs?

$$\frac{X}{230} = \frac{72}{100}$$

$$\frac{120}{X} = \frac{65}{100}$$

$$X(65) = 120(100)$$

$$\frac{65X}{65} = \frac{12000}{65}$$

$$X = 184.6$$

DOGS

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{230}{X} = \frac{72\%}{100}$

- 5 What percent of your friends like playing dodge ball if 5 out of 8 of them like playing dodge ball?

62.5% OF YOUR FRIENDS LIKE TO PLAY DODGE BALL.

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{5}{8} = \frac{X}{100}$

- 6 John has walked 15% of the way home from school. If he has walked 200 meters so far, how far does he walk home from school?

$$\frac{200}{X} = \frac{15}{100}$$

$$\frac{5}{8} = \frac{X}{100}$$

$$8(X) = 5(100)$$

$$\frac{8X}{8} = \frac{500}{8}$$

$$X = 62.5$$

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{200}{X} = \frac{15\%}{100}$

- 7 Each day, a bakery makes 50 loaves of wheat bread. If that amount is 20% of all the bread that they bake, how many loaves do they bake each day?

$$\frac{50}{250} = \frac{20}{100}$$

$$\frac{20}{100} = \frac{20}{100}$$

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{50}{X} = \frac{20\%}{100}$

- 8 There are 82 students in a high school band. If 31 of those students play brass instruments, what percent play brass?

$$\frac{31}{82} = \frac{X}{100}$$

$$\frac{50}{X} = \frac{20}{100}$$

$$50(100) = 20X$$

$$5000 = 20X$$

$$\frac{5000}{20} = \frac{20X}{20}$$

$$250 = X$$

STUDENTS THAT PLAY BRASS

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{31}{82} = \frac{X}{100}$

- 9 An Olympic team won 20 medals. If 30% of the medals were gold, how many gold medals did they win?

$$\frac{6}{20} = \frac{3}{10}$$

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

THE GOLD MEDALS

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{20}{X} = \frac{30\%}{100}$

- 10 How many pizzas does a restaurant make each night if 25% of the total is equal to 90 pizzas?

$$\frac{90}{X} = \frac{25}{100}$$

$$\frac{X}{20} = \frac{30}{100}$$

$$X \div 5 = \frac{30}{100}$$

$$X = 6$$

$$\frac{\text{Part}}{\text{Total}} = \frac{\text{Percent}}{100}$$

$\frac{90}{X} = \frac{25\%}{100}$