

Percents: Missing Total: Word Problems

PMT 1

Instructions: Use what you learned in the video about finding a missing total to solve each word problem.

- 1** 60% of the animals at a pet shop are dogs. If there are 42 dogs at the shop, then how many animals are there altogether?

$$\frac{42 \times 100}{60} = \text{total}$$

$$\frac{4,200}{60} = \text{70}$$

- 2** If a car's gas tank has 15 gallons of gas in it, and the gauge says the tank is 75% full, then how many gallons can the entire tank hold?

$$\frac{15 \times 100}{75} = \text{total}$$

$$\frac{1,500}{75} = \text{20 gal}$$

- 3** A fruit stand's most popular fruit is strawberries, which account for 35% of their total sales. If they usually sell \$70 worth of strawberries each day, what would their usual daily income be?

$$\frac{70 \times 100}{35} = \text{total}$$

$$\frac{7,000}{35} = \text{\$200}$$

- 4** A mountain climber has made it 80% of the way up a mountain. If they have climbed to an altitude of 3,200 meters so far, how tall is the mountain?

$$\frac{3,200 \times 100}{80} = \text{total}$$

$$\frac{320,000}{80} = \text{4,000 m}$$

- 5** A digital memory card is only 4% full. If there is 1.2 GB worth of data on the card, how much data can the entire card hold?

$$\frac{1.2 \times 100}{4} = \text{total}$$

$$\frac{120}{4} = \text{30 GB}$$

- 6** Some students are taking a timed test and they have spent 16 minutes on the test so far. If 20% of the time has gone by, how long do they have to complete the whole test?

$$\frac{16 \times 100}{20} = \text{total}$$

$$\frac{1,600}{20} = \text{80 min}$$

Percents: Missing Total

- 1** At a birthday party, 50% of the cupcakes are chocolate. If there are 20 chocolate cupcakes, how many cupcakes are there altogether?

$$\frac{20 \times 100}{50} = \text{total}$$

$$\frac{2,000}{50} = \textcircled{40}$$

- 2** A store's parking lot is 10% full. If there are 12 cars in the lot, then how many cars can the entire parking lot hold?

$$\frac{12 \times 100}{10} = \text{total}$$

$$\frac{1,200}{10} = \textcircled{120}$$

- 3** A music store sells both electric and acoustic guitars. One month, the store sold 12 electric guitars. If that was 60% of their sales for the month, how many guitars did they sell that month in all?

$$\frac{12 \times 100}{60} = \text{total}$$

$$\frac{1,200}{60} = \textcircled{20}$$

- 4** A family is on a road trip, and they have driven 30% of the distance to their destination. If they have driven 150 kilometers so far, what is the total distance to their destination?

$$\frac{150 \times 100}{30} = \text{total}$$

$$\frac{15,000}{30} = \textcircled{500 \text{ km}}$$

- 5** A baseball team won 90% of their games last season. If they won 144 games, then how many games did they play during the entire season?



$$\frac{144 \times 100}{90} = \text{total}$$

$$\frac{14,400}{90} = \textcircled{160}$$

- 6** A rain barrel is 65% full. If there are 26 gallons of rain water in the barrel, how many gallons of water can the whole barrel hold?



$$\frac{26 \times 100}{65} = \text{total}$$

$$\frac{2,600}{65} = \textcircled{40 \text{ gal.}}$$

- 7** A theater has sold 70% of the tickets for an upcoming show. If it has sold 63 tickets so far, how many tickets are left? (*hint: find the total first.*)



$$\frac{63 \times 100}{70} = \text{total}$$

$$\frac{6,300}{70} = 90$$

$$90 - 63 = \textcircled{27 \text{ left}}$$

- 8** A bakery has sold 84% of the bread it baked that morning. If it has sold 126 loaves of bread, how many loaves of bread are left? (*hint: find the total first.*)



$$\frac{126 \times 100}{84} = \text{total}$$

$$\frac{12,600}{84} = 150$$

$$150 - 126 = \textcircled{24 \text{ left}}$$

Percents: Mixed Word Problems

PMT 2

Instructions: In the last three videos about Percents, you have learned how to solve problems where the **Part** is missing, where the **Percent** is missing, and where the **Total** is missing. In each of the problems below, determine which number is missing and then use what you've learned in the videos to find it. (You can use a calculator if you need to.)

- 1 A 16 ounce drink contains 70% fruit juice. How many ounces of fruit juice are in the drink?

The Part is missing.

$$70\% \times 16$$

$$0.70 \times 16 = \text{11.2 oz}$$

- 2 A volleyball team played 28 matches and won 21 of them. What percent of their matches did they win?

The Percent is missing.

$$\frac{21}{28} = 0.75$$

$$0.75 \times 100 = \text{75\%}$$

- 3 A painter has finished painting 45% of a really long fence. If she has painted 90 feet so far, how long is the entire fence?

The Total is missing.

$$\frac{90 \times 100}{45} = \text{total}$$

$$\frac{9,000}{45} = \text{200 ft}$$

- 4 A TV show is on from 7:00 to 8:00pm. If there are 18 minutes of advertisements during that time, what percent of the show was advertisements?

The Percent is missing.

$$\frac{18}{60} = 0.3$$

$$0.3 \times 100 = \text{30\%}$$

- 5 A new type of light bulb uses only 23% as much power as an old light bulb. If the old light bulb used 60 Watts, how much power (in Watts) does the new bulb use?

The Part is missing.

$$23\% \times 60$$

$$0.23 \times 60 = \text{13.8 W}$$

- 6 70% of the students at a school went on a field trip to an Aquarium. If there were 350 students on the trip, how many students attend that school?

The Total is missing.

$$\frac{350 \times 100}{70} = \text{total}$$

$$\frac{35,000}{70} = \text{500}$$