

USE PERCENT PROPORTION TO FIND THE PERCENT OF A NUMBER.

USE PERCENT PROPORTION IN PROBLEM SOLVING SITUATIONS.



Multi-Step A nutrition label states that one serving of tortilla chips contains 7 grams of fat and 11% of the recommended daily allowance (RDA) of fat.

- Write a ratio that represents the percent RDA of fat in one serving of tortilla chips. $11\% = \frac{11}{100} = 11 \text{ to } 100 = 11:100$
- Use the ratio from part a to write and solve a proportion to determine how many grams of fat are in the recommended daily allowance.

$$\frac{11}{100} \rightarrow \frac{7}{x}$$

$$\frac{700}{11} = 63.6 \text{ grams of FAT}$$

$$\frac{\%}{100} = \frac{\text{part (p) "is"}}{\text{whole (w) "of"}}$$

Miguel has a garden that has an area of 315 square feet. He wants to expand his garden by 30%. By how many square feet does he want to expand?

$$\frac{30}{100} \rightarrow \frac{x}{315}$$

$$\frac{9450}{100} \quad x = 94.5 \text{ ft}^2$$

Ramon works for his father after school. He earns \$7.00 an hour. Yesterday his father gave him a .25 \$ per hour raise. What percent of his normal wage is this amount?

$$\frac{x}{100} \rightarrow \frac{.25}{7}$$

$$\frac{25}{7} = 3.5\%$$

$$\frac{\%}{100} = \frac{\text{part (p) "is"}}{\text{whole (w) "of"}}$$

9. The sales tax on a \$120 skateboard at Surf 'n' Skate is \$9.60. What is the sales tax rate?

$$\frac{X}{100} = \frac{\$9.60}{\$120} \quad X = 8\%$$

During a quality control check, a factory found that 15% of the parts it produces are defective. The factory recently completed an order for 225,000 parts.

Approximately how many of the parts from the order may be defective?

$$\frac{15}{100} = \frac{X}{225,000}$$

$$\frac{3,375,000}{100}$$

$$X = 33,750 \text{ parts}$$

A store sold 43 boxes of juice from a case containing 70 boxes.

What percent of the case of juice has been sold?

$$\frac{\%}{100} = \frac{\text{part (p) "is"}}{\text{whole (w) "of"}}$$

$$\frac{x}{100} \rightarrow \frac{43}{70}$$
$$\frac{4300}{70} = 61.4\%$$

An airline has 800 flights a day. Of these, 60% depart before 6 p.m. Flights leaving before 6 p.m. depart on schedule $\frac{3}{4}$ of the time.

How many flights leaving before 6 p.m. depart on schedule each day?

(A)

$$\frac{60}{100} \rightarrow \frac{x}{800}$$
$$\frac{48,000}{100} = 480$$

(B)

$$\frac{75}{100} \rightarrow \frac{x}{480}$$
$$\frac{36,000}{100} = 360 \text{ flights}$$