

Solve each problem using a percent equation.

1. In a recent study, 56% of all people surveyed prefer Shine Toothpaste. If 1600 people were surveyed, how many people use Shine Toothpaste?

$$\text{part} = \% \cdot \text{whole}$$

$$n = 56\% \cdot 1600$$

$$n = (0.56)(1600)$$

$$n = 896 \text{ people}$$

2. In the 7th grade, there are 250 students. If 130 are girls, what percent of the class are boys?

$$\text{part} = \% \cdot \text{whole}$$

$$\text{GIRLS} \rightarrow \frac{130}{250} = \frac{n\% \cdot 250}{250}$$

$$0.52 = n\%$$

$$52\%$$

$$48\% \text{ are boys}$$

3. Jordan ran 25% of his weekly running goal. If he ran 8 miles, what was his weekly running goal?

$$\text{part} = \% \cdot \text{whole}$$

$$8 = 25\% \cdot n$$

$$\frac{8}{0.25} = \frac{0.25n}{0.25}$$

$$32 \text{ miles} = n$$

4. On Labor Day, road traffic was 150% of normal. If the normal number of cars on the road is 25,000, how many were on the road on Labor Day?

$$\text{part} = \% \cdot \text{whole}$$

$$n = 150\% \cdot 25000$$

$$n = (1.5)(25000)$$

$$n = 37500 \text{ cars}$$

5. A jet is traveling at 75% of its usual speed. If it is traveling at 900 km per hour, what is the jet's usual speed?

$$\text{part} = \% \cdot \text{whole}$$

$$900 = 75\% \cdot n$$

$$\frac{900}{0.75} = \frac{0.75n}{0.75}$$

$$1200 \text{ km} = n$$

per hr

6. Out of 29 students, 7 received A+'s on the last test. What percent of students received A+'s?

$$\text{part} = \% \cdot \text{whole}$$

$$\frac{7}{29} = \frac{n\% \cdot 29}{29}$$

$$0.24137... = n\%$$

$$24\%$$

7. A stationary store sold 98% of its newspapers. How many is this if the store has 350 papers to sell?

$$\text{part} = \% \cdot \text{whole}$$

$$n = 98\% \cdot 350$$

$$n = (0.98)(350)$$

$$n = 343 \text{ newspapers}$$

8. A family uses 40% of its annual income for housing expenses. If the annual income is \$109,750.00, what amount is spent on housing costs?

$$\text{part} = \% \cdot \text{whole}$$

$$n = 40\% \cdot 109750$$

$$n = (0.40)(109750)$$

$$n = \$43900$$