

6.3 The Percent Proportion

EQ: How can you use proportions to solve percent problems?

The percent proportion:

$$\frac{\text{part}}{\text{whole}} = \frac{\text{percent}}{100} \leftarrow \text{percent is always out of 100}$$

OR

$$\frac{\text{is}}{\text{of}} = \frac{\%}{100}$$

Example 1: Finding the percent.

What percent of 15 is 12?

$$\frac{12}{15} = \frac{x}{100}$$

$$12 \times 100 = 1200$$
$$1200 \div 15 = 80$$

$$x = 80$$

80% of 15 is 12

Example 2: Finding the part.

What is 36% of 50?

$$\frac{x}{50} = \frac{36}{100}$$

$$36 \div 2 = 18$$

$$\div 2$$

$$x = 18$$

18 is 36% of 50

Example 3: Finding the whole.

150% of what number is 24

$$\frac{24}{x} = \frac{150}{100}$$

$$24 \times 100 = 2400$$

$$2400 \div 150 = 16$$

$$x = 16$$

150% of 16 is 24