

L1 - Solving Percent Problems using Proportions Worksheet

Name: Key
Date: _____ Section: _____

REMEMBER:

- "OF" number is always behind the word of
- "%" number is the number with the percent sign
- "IS" number will be in front of the word is or behind the word is

!! **PROPORTION** !!

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

* If you are solving for a percent, make sure to put a % on

Write a proportion and then solve it for each problem. Be sure to show all the steps for solving a proportion. If necessary, round answers to the nearest tenth.

1. What number is 70% of 45?

$$\frac{x}{45} = \frac{70}{100}$$

$$100x = 45 \cdot 100$$

$$\frac{100x}{100} = \frac{4500}{100}$$

$$x = 45$$

1. x = 45

2. 23% of 75 is what number?

$$\frac{x}{75} = \frac{23}{100}$$

$$100x = 75 \cdot 23$$

$$\frac{100x}{100} = \frac{1725}{100}$$

$$x = 17.25$$

2. x = 17.25

3. 45 is what percent of 90?

$$\frac{45}{90} = \frac{x}{100}$$

$$90x = 45 \cdot 100$$

$$\frac{90x}{90} = \frac{4500}{90}$$

$$x = 50\%$$

3. x = 50%

4. What percent of 77 is 7?

$$\frac{7}{77} = \frac{x}{100}$$

$$77x = 7 \cdot 100$$

$$\frac{77x}{77} = \frac{700}{77}$$

$$x = 9.\overline{099}\%$$

4. x = 9.\overline{099}\%

5. 15 is 25% of what number?

$$\frac{15}{x} = \frac{25}{100}$$

$$25x = 15 \cdot 100$$

$$\frac{25x}{25} = \frac{1500}{25}$$

$$x = 60$$

5. x = 60

6. 18% of what number is 43?

$$\frac{43}{x} = \frac{18}{100}$$

$$18x = 43 \cdot 100$$

$$\frac{18x}{18} = \frac{4300}{18}$$

$$x = 238.\overline{8}$$

6. x = 238.\overline{8}

