

Percent Proportion and Percent Equations

Most questions will come in the form of a percent equation and they will start off asking “What percent of What is What” _____ % of _____ is _____	You will change the format of the question to a percent proportion to look like 2 equal fractions. The fractions will read “is over of equals percent over 100.” It will look like this: $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$
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Example: What percent of 20 is 5?

When you use a percent proportion you will **cross multiply** to find the missing number.

Step 1 - setup a proportion

$$\frac{5}{20} = \frac{x}{100}$$

Step 2 - cross multiply

$$20(x) = (5)100$$

Step 3 divide the coefficient to solve for x

$$20x = 500$$

$$x = 25$$

Example: What is 80% of 400?

Step 1 - setup a proportion

$$\frac{x}{400} = \frac{80}{100}$$

Step 2 - cross multiply

$$100(x) = (400)80$$

Step 3 divide the coefficient to solve for x

$$100x = 3200$$

$$x = 320$$

Name _____

Date _____

1.) 10 is what percent of 40?

Identify the is , of , and percent	Set up the proportion $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$

2.) What is 35% of 200?

Identify the is , of , and percent	Set up the proportion $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$

3.) 25% of what number is 15?

Identify the is , of , and percent	Set up the proportion $\frac{\text{is}}{\text{of}} = \frac{\%}{100}$