



Solving Proportions Guided Notes

What is a Proportion?

A proportion is an equation having two ratios equal.

$$\frac{a}{b} = \frac{c}{d}$$

b & c  means

a & d  extremes

Methods of Solving Proportions

In solving proportions, we simplify both sides of the equality by using different properties to single out the variable whose value is to be found. There are two ways of solving a proportion.

1. Using Multiplication property of Equality

In this method, we multiply both sides of the proportion by a suitable number to single out the variable on one side and simplify the other side to find the value of the variable.

$$\frac{a}{b} = \frac{x}{d} \quad \Rightarrow \quad d \times \frac{a}{b} = \frac{x}{d} \times d$$

Multiplication Property of Equality

$$\Rightarrow \quad x = \frac{ad}{b}$$

Solving Proportions

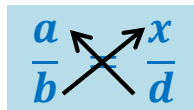
 Guided Notes

Problem 1: Solving the proportion given below using the Multiplication property of Equality.

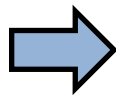
$$\frac{x}{15} = \frac{4}{5}$$

2. Cross-Product Property in Proportions

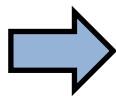
In a proportion, the product of extremes is equal to the product of means i.e. we cross multiply the terms on both sides of equality and simplify to solve for the given variable.


$$\frac{a}{b} = \frac{x}{d}$$

Cross Multiply



$$ad = bx$$



$$x = \frac{ad}{b}$$

Name: _____ Period: _____ Date: _____

Solving Proportions Guided Notes

Problem 2: Solve the proportion $\frac{4}{3} = \frac{y+2}{6}$.