

Notes- Solving Proportions.notebook

Solving Proportions

How do we know if proportions are equivalent?

$$\frac{2}{3} = \frac{\square}{6}$$

$$\frac{5}{12} = \frac{15}{\square}$$

$$\frac{\square}{10} = \frac{4}{5}$$

What do you notice about the **cross products** of each proportion?

To solve a proportion that contains a variable, you find the value that makes the equation true. Use the **cross products** to find the value of x .

$$\frac{6}{3} = \frac{x}{5}$$

$$\frac{x}{36} = \frac{21}{27}$$

$$\frac{6}{13} = \frac{7.8}{x}$$

Solving Proportions Word Problems

If two pounds of meat will serve 5 people, how many pounds will be needed to serve 13 people?

Mary has saved \$17.50 in the past 3 weeks. At this rate, how much will she save in 15 weeks?

A crew of loggers cleared $\frac{1}{2}$ acre of lumber in 4 days. How long will it take the same crew to clear $2\frac{3}{4}$ acres of lumber?

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A recipe calls for $2\frac{1}{2}$ cups of flour to make 2 dozen cookies. How many cups of flour would be required to bake 15 dozen cookies?

If a 6 ft. tall woman casts a 10 ft. long shadow, then how long is the shadow that a 9 ft tall giraffe casts?