

# Solving Proportions

9/23

Is it proportional? - Same unit Rate

1.  $\frac{3}{4}$  and  $\frac{9}{12}$  36

$\frac{3}{4} \times 3 = \frac{9}{12}$

$\frac{36}{4} = .75$        $\frac{36}{12} = .75$

Yes

2.  $\frac{7}{3}$  and  $\frac{12}{5}$  36

$\frac{7}{3} \times 3 = 7$        $\frac{12}{5} \times 3 = 7.2$

$\frac{36}{3} = 12$        $\frac{36}{5} = 7.2$

No

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Solving Proportions - Find the missing value that makes the ratios proportional

Last Year

$\frac{2}{4} = \frac{x}{12}$

$\frac{2}{4} \times 3 = \frac{x}{12} \times 3$

$\frac{6}{4} = \frac{x}{12}$

$x = 6$

This Year

$\frac{9}{10} = \frac{x}{4}$  36

$\frac{9}{10} \times 36 = \frac{x}{4} \times 36$

$\frac{324}{10} = \frac{36x}{4}$

$32.4 = 9x$

$x = 3.6$

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Example	Steps
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$$\frac{x}{7} = \frac{12}{52}$$

$$\frac{52x}{52} = \frac{84}{52}$$

$$\boxed{18/13}$$

$$\approx 1.6$$

1. Cross Multiply

2. Divide by the Coefficient

↳ the # before a variable

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### Practice

①  $\frac{2}{34} = \frac{5}{m}$

$$\frac{2m}{2} = \frac{170}{2}$$

$$\boxed{m = 85}$$

②  $\frac{7}{3} = \frac{12}{x}$

$$\frac{7x}{7} = \frac{36}{7}$$

$$\boxed{x = 5\frac{1}{7} \approx 5.1}$$

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