

Ratios & Proportions

Simplify each ratio.

1) 7 : 49

2) 24 : 10

3) 55 : 66

Decide if each pair of ratios forms a proportion.

1) $\frac{3}{4}$ and $\frac{9}{20}$

2) $\frac{4}{2}$ and $\frac{8}{6}$

3) $\frac{12}{6}$ and $\frac{4}{2}$

Solve each proportion for the given variable.

1) $\frac{x}{9} = \frac{2}{6}$

2) $\frac{5}{x} = \frac{9}{5}$

3) $\frac{6}{b-1} = \frac{9}{7}$

4) $\frac{4}{9} = \frac{r-3}{6}$

5) $\frac{9}{g-7} = \frac{6}{g}$

6) $\frac{2}{8} = \frac{n+4}{n-4}$

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Answers

Simplify each ratio.

1) $7 : 49$

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2) $24 : 10$

$12 : 5$

3) $55 : 66$

$5 : 6$

Decide if each pair of ratios forms a proportion.

1) $\frac{3}{4}$ and $\frac{9}{20}$

No

2) $\frac{4}{2}$ and $\frac{8}{6}$

No

3) $\frac{12}{6}$ and $\frac{4}{2}$

Yes

Solve each proportion for the given variable.

1) $\frac{x}{9} = \frac{2}{6}$

$x = 3$

2) $\frac{5}{x} = \frac{9}{5}$

$x = 2.78$

3) $\frac{6}{b-1} = \frac{9}{7}$

$b = 5.67$

4) $\frac{4}{9} = \frac{r-3}{6}$

$r = 5.67$

5) $\frac{9}{g-7} = \frac{6}{g}$

$g = -14$

6) $\frac{2}{8} = \frac{n+4}{n-4}$

$n = -6.67$