SOLVING PROPORTIONS

What are Proportions?

Proportions are EQUAL RATIOS

$$\frac{3}{5} = \frac{6}{10}$$

The cross-products of proportions are _____

Review

Solve. $\frac{8}{x} = \frac{6}{15}$

Practice

Solve for the missing variable.

1) $\frac{1}{5} = \frac{x}{20}$

2) $\frac{8}{6} = \frac{x}{9}$

Solving

1) Cross-multiply
2) Solve like a multi-step equation

$a)\ \frac{2}{5}=\frac{4}{x+1}$

Solving

1) Cross-multiply
2) Solve like a multi-step equation

$b)\ \frac{21}{y-8}=3$

Examples

$c)\ \frac{7}{d+5}=\frac{10}{d+2}$

Practice

$1)\ \frac{4}{x}=\frac{8}{x-3}$

Practice

2) $\frac{-49}{7} = \frac{a+7}{6}$

Practice

3) $\frac{8}{12} = \frac{r}{r+1}$

Practice

4) $\frac{42}{63} = \frac{k}{k-2}$