

Solving Proportions

9/17

*Cross Multiply

Then	Now
$\frac{x}{5} = \frac{9}{3}$	$\frac{x-2}{14} = \frac{2}{7}$
$\frac{3x}{3} = \frac{45}{3}$	<p>*distribute</p> $28 = 7(x-2)$
$x = 15$	$28 = 7x - 14$
	$\begin{array}{r} +14 \quad +14 \\ \hline 42 = 7x \end{array}$
	$\frac{42}{7} = \frac{7x}{7}$
	$x = 6$

Sep 13-8:05 AM

Practice

① $\frac{4x+7}{15} = \frac{6x+2}{10}$

$$10(4x+7) = 15(6x+2)$$

$$\begin{array}{r} 40x + 70 = 90x + 30 \\ -40x \quad -40x \\ \hline 70 = 50x + 30 \\ -30 \quad -30 \\ \hline 40 = 50x \end{array}$$

$$\frac{40}{50} = \frac{50x}{40}$$

$x = 0.8$ or $\frac{4}{5}$

② $\frac{9n-3}{9} = \frac{5n+5}{3}$

$$3(9n-3) = 9(5n+5)$$

$$\begin{array}{r} 27n - 9 = 45n + 45 \\ -27n \quad -27n \\ \hline -9 = 18n + 45 \\ -45 \quad -45 \\ \hline -54 = 18n \end{array}$$

$$\frac{-54}{18} = \frac{18n}{18}$$

$n = -3$

Sep 13-8:10 AM

on own

$$\textcircled{1} \quad \frac{10}{15} = \frac{4}{x-5}$$

$$60 = 10(x-5)$$

$$60 = 10x - 50$$

$$\begin{array}{r} +50 \\ \hline \end{array}$$

$$\frac{110}{10} = \frac{10x}{10}$$

$$\boxed{x=11}$$

$$\textcircled{2} \quad \frac{4-y}{5} = \frac{2-2y}{8}$$

$$8(4-y) = 5(2-2y)$$

$$32 - 8y = 10 - 10y$$

$$\begin{array}{r} +10y \\ \hline 32 + 2y = 10 \\ -32 \quad \quad -32 \\ \hline \end{array}$$

$$\frac{2y}{2} = \frac{-22}{2}$$

$$\boxed{y=-11}$$

Sep 13-8:17 AM