

Name:

Date:

Variables | constants

Solving Two-Step Equations

$$\begin{array}{r}
 4p + 3 = 3 \\
 -3 \quad -3 \\
 \hline
 4p = 0 \\
 4 \cdot p = 0 \\
 p = 0
 \end{array}$$

What does p have to be to make equation true

$$\begin{array}{r}
 5(1+n) = 5 \\
 5 \cdot 1 + 5 \cdot n \\
 5 + 5n = 5 \\
 -5 \quad -5 \\
 \hline
 5n = 0 \\
 \div 5 \quad \div 5 \\
 n = 0
 \end{array}$$

multiply

move across sign \neq

$$\begin{array}{r}
 5 = 4 + \frac{b}{4} \\
 -4 \quad -4 \\
 \hline
 1 = \frac{b}{4} \\
 4 \cdot 1 = b \\
 4 = b
 \end{array}$$

division opposite is multiply

$$\begin{array}{r}
 3p - 5 = 11 \\
 +5 \quad +5 \\
 \hline
 3p = 16 \\
 \frac{3p}{3} = \frac{16}{3} \\
 p = 5\frac{1}{3}
 \end{array}$$

$$\begin{array}{r}
 10 = 2(x+2) \leftarrow \text{distribute first} \\
 10 = 2x + 4 \\
 -4 \quad -4 \\
 \hline
 6 = 2x \\
 \div 2 \quad \div 2 \\
 3 = x
 \end{array}$$

$$\begin{array}{r}
 4 = 2 + \frac{x}{5} \\
 -2 \quad -2 \\
 \hline
 2 = \frac{x}{5} \leftarrow \div \\
 5 \times 2 = \frac{x}{5} \times 5 \\
 10 = x \\
 x = 10
 \end{array}$$

$$36 = 4 + 4x$$

$$1 = 4n - 3$$

Every time we \curvearrowright we do opposite operation.