NAME

Module 3 Solving Linear Equations of One Variable

Lesson 5 Solving Multi-Step Linear Equations

Set 1

1. Solve: $4R - 1 = 2R + 9$

$4R - 1 = 2R + 9$
$2R - 1 = 9$
$2R = 10$
$R = 5$

2. Solve: $5z + 7 = 4z + 3 + z$

$5z + 7 = 5z + 3 + z$
$5z + 7 = 5z + 3$
$7 = 3$
The equation has no solution.

3. Solve: $8G + 6 = 1 - 2G$

$8G + 6 = 1 - 2G$
$10G + 6 = 1$
$10G = -5$
$G = -\frac{5}{10} = -\frac{1}{2}$

Set 2

1. Solve: $3(h - 4) = -18$

$3(h - 4) = -18$
$3h - 12 = -18$
$3h = -6$
$h = -2$

2. Solve: $5\left(2w - \frac{3}{5}\right) = w + 6$

$5\left(2w - \frac{3}{5}\right) = w + 6$
$10w - 3 = w + 6$
$9w - 3 = 6$
$9w = 9$
$w = 1$

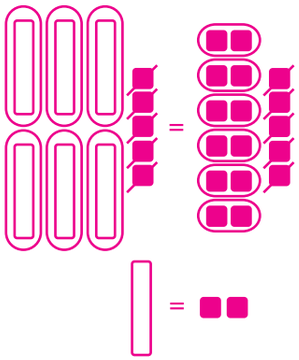
3. Solve: $-\frac{3}{4}x + 1 = \frac{1}{8}x + \frac{3}{10}$

$-\frac{3}{4}x + 1 = \frac{1}{8}x + \frac{3}{10}$
$40\left(-\frac{3}{4}x + 1\right) = 40\left(\frac{1}{8}x + \frac{3}{10}\right)$
$40\left(-\frac{3}{4}x\right) + 40(1) = 40\left(\frac{1}{8}x\right) + 40\left(\frac{3}{10}\right)$
$-30x + 40 = 5x + 12$
$-35x + 40 = 12$
$-35x = -28$
$x = \frac{-28}{-35} = \frac{4}{5}$

Manipulative Set

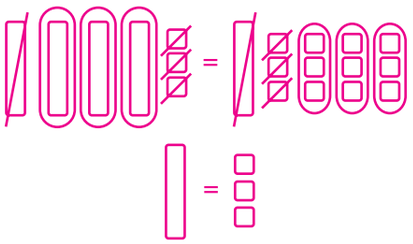
Solve each equation using algebra tiles.

1. $6x - 5 = -17$



$x = -2$

2. $4x + 3 = x + 12$



$x = 3$