

## Solving Equations with Variables on Both Sides

Directions: Solve each equation. Use your answer to navigate through the maze. Show your work.

**START**

$2(4x - 3) = 5x - 18$        $\frac{12 + x}{4} = \frac{-6 - x}{2}$        $-\frac{x}{4} - 2 = x + 3$        $\frac{12 + 3x}{2} = \frac{4x + 6}{3}$

$x = -4$        $x = -6$        $x = -3$

$x = 2$        $x = 1$       *no solution*       $x = -1$        $x = -1$        $x = -24$

$4(x + 1) = 2x + 2$        $x + \frac{x}{2} = 1 + 2x$        $x - 5(x + 1) = 5 + x$        $1 - \frac{x}{6} = \frac{x}{2} - 3$

$x = -1$        $x = -2$        $x = -2$

$x = 1$        $x = 2$        $x = 11$        $x = \frac{1}{2}$        $x = -3$

$-2x + 3 = 2(2 - x)$        $-7(x + 2) = x + 2$        $\frac{x}{4} + x = \frac{x}{2} - 3$        $12 + \frac{10}{x} = 10 - 12$

$x = -2$        $x = -4$        $x = 4$

$x = -1$       *no solution*       $x = 10$        $x = 8$        $x = -\frac{1}{2}$        $x = -3$        $x = 2$

$\frac{6x - 5}{2} = \frac{3x + 12}{6}$        $-(x + 12) = -3x + 2$        $x - \frac{x}{4} = \frac{-(x + 5)}{2}$

$x = 1$        $x = 7$        $x = -2$

**Good Job!**

**The End**