

COMBINE LIKE TERMS (VARIABLE ON 1 SIDE)

$$(3x) - 8 + 5x + 10 - 2 = 38$$

$$6x + 2 = 38$$

$$+ -2 + -2 \quad x = 6$$

$$\frac{6x}{6} = \frac{36}{6}$$

$$(-5y) + 9 - 3y + 12 - 6 = 39$$

$$-8y + 15 = 39$$

$$+ -15 + -15$$

$$\frac{-8y}{-8} = \frac{24}{-8} \quad y = 3$$

VARIABLE ON BOTH SIDES

$$11x + 7 = 84$$

$$+ -7 + -7$$

$$11x = 77$$

$$x = 7$$

$$3x + 7 = -8x + 84$$

$$\leftarrow 11x + 7 = 84 - \text{Solve}$$

$$7x - 6 = 3x - 30$$

$$+ -3x \quad + -3x$$

$$4x - 6 = -30$$

$$+6 \quad +6$$

$$\frac{4x}{4} = \frac{-24}{4}$$

$$x = -6$$

ELIMINATE

-8x by adding
the opposite
+8x

DISTRIBUTE

$$-5(x-6) = 0$$

$$-5x + 30 = 0$$

$$+ -30 \quad + -30$$

$$\frac{-5x}{-5} = \frac{-30}{-5} \quad x = 6$$

DISTRIBUTE & COMBINE LIKE TERMS

$$3(x-6) + 2(x+4) = 5$$

$$\boxed{3x-18} + \boxed{2x+8} = 5$$

$$5x - 10 = 5$$

$$\frac{5x - 10}{+10} = \frac{5}{+10} \quad x = 3$$

$$6(x+2) - 3(x-3) = 7x+41$$

$$6x + 12 - 3x + 9$$

$$3x + 21 = 7x + 41$$

$$+ -3x \quad + -3x$$

$$21 = 4x + 41$$

$$+ -41 \quad + -41$$

$$\frac{-20}{4} = \frac{4x}{4} \quad x = -5$$