

Solving Equations with Variables on Both Sides

$$\textcircled{1} \quad 15 - 2x = -7x$$

$$\quad \quad \quad +7x \quad +7x$$

$$\hline 15 + 5x = 0$$

$$\quad \quad \quad -15 \quad -15$$

$$\hline 5x = -15$$

$$\quad \quad \quad \frac{5}{5} \quad \frac{-15}{5}$$

$$\hline \textcircled{x = -3}$$

$$\textcircled{2} \quad -2(x-5) = 6(2-0.5x)$$

$$\quad \quad \quad -2x + 10 = 12 - 3x$$

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

$$\hline x + 10 = 12$$

$$\quad \quad \quad -10 \quad -10$$

$$\hline \textcircled{x = 2}$$

$$\textcircled{3} \quad 3 - 4x = -7 - 4x$$

$$\quad \quad \quad +4x \quad \quad \quad +4x$$

$$\hline 3 \neq -7$$

$\textcircled{\text{No Solution}}$

$$\textcircled{4} \quad 6x + 4 = 4\left(\frac{3}{2}x + 1\right)$$

$$\quad \quad \quad 6x + 4 = 6x + 4$$

$$\quad \quad \quad -6x \quad \quad \quad -6x$$

$$\hline 4 = 4$$

$\textcircled{\text{IMS}}$

Infinitely Many
Solutions