

## Examples

$$1. \begin{array}{r} 7 - 2n = n - 14 \\ +2n \quad +2n \\ \hline \end{array}$$

$$\begin{array}{r} 7 = 3n - 14 \\ +14 \quad +14 \\ \hline \end{array}$$

$$\begin{array}{r} 21 = 3n \\ 3 \quad 3 \\ \hline \end{array}$$

$$\boxed{n=7}$$

$$2. \begin{array}{r} 6 - 3d = 5(2 - d) \\ 6 - 3d = 10 - 5d \\ +5d \quad +5d \\ \hline \end{array}$$

$$\begin{array}{r} 6 + 2d = 10 \\ -6 \quad -6 \\ \hline \end{array}$$

$$2d = 4$$

$$\begin{array}{r} 2d = 4 \\ 2 \quad 2 \\ \hline \end{array}$$

$$d = 2$$

$$\boxed{d=2}$$

$$3. \begin{array}{r} 2(4 - 2r) = -2(r + 5) \\ 8 - 4r = -2r - 10 \\ +4r \quad +4r \\ \hline \end{array}$$

$$8 = 2r - 10$$

$$+10 \quad +10$$

$$18 = 2r$$

$$\begin{array}{r} 18 = 2r \\ 2 \quad 2 \\ \hline \end{array}$$

$$r = 9$$

$$\boxed{r=9}$$

$$4. \begin{array}{r} 5(a - 2) - 3 = 3a + 7 + 2a \\ 5a - 10 - 3 = 3a + 7 + 2a \\ 5a - 13 = 5a + 7 \\ -5a \quad -5a \\ \hline \end{array}$$

$$-13 = 7$$

$$-5a = 7$$

$$-13 = 7$$

$$-13 = 7$$

False Statement →

**NO SOLUTION**

$$5. \begin{array}{r} \frac{1}{3}(24x - 15) = 8x - 5 \\ 8x - 5 = 8x - 5 \\ -8x \quad -8x \\ \hline \end{array}$$

$$-5 = -5$$

$$-5 = -5$$

$$-5 = -5$$

True Statement →

**ALL REAL #'S**

## Options for Solutions:

- 1 solution:  $x = \underline{\quad}$
- no solution: false statement & variables cancel out
- all real #'s: true statement & variables cancel out