

8/28 Algebra - Downing

Bellwork - solve for x

$$\textcircled{1} \quad \begin{array}{r} \frac{3}{4}x - 5 = 7 \\ +5 \quad +5 \end{array}$$

$$\textcircled{4} \quad \frac{3}{4}x = 12(4)$$

$$\begin{array}{r} 3x = 48 \\ \div 3 \quad \div 3 \end{array}$$

$$\boxed{x = 16}$$

$$\textcircled{2} \quad \begin{array}{r} -3x = 26 \\ -5 \quad -5 \end{array}$$

$$\begin{array}{r} -3x = 21 \\ -3 \quad -3 \end{array}$$

$$\boxed{x = -7}$$

$$\textcircled{3} \quad 2(x-5) = 16$$

$$\begin{array}{r} 2x - 10 = 16 \\ +10 \quad +10 \end{array}$$

$$\begin{array}{r} 2x = 26 \\ \div 2 \quad \div 2 \end{array}$$

$$\boxed{x = 13}$$

Go over HW - mark ones missed + turn in

1.3 - Multi-Step Equations

$$\text{Ex) } -7(-7b+1) - 5 = -306$$

$$49b - 7 - 5 = -306$$

$$\begin{array}{r} 49b - 12 = -306 \\ +12 \quad +12 \end{array}$$

$$\begin{array}{r} 49b = -294 \\ \div 49 \quad \div 49 \end{array}$$

$$\boxed{b = -6}$$

$$\text{Ex) } -5 + 3(x-7) = -25 + 3x$$

$$\begin{array}{r} -5 + 3x - 21 = -25 + 3x \end{array}$$

$$\begin{array}{r} -26 + 3x = -25 + 3x \\ -3x \quad -3x \end{array}$$

$$-26 \neq -25$$

$\boxed{\text{No Solution}}$

$$\text{Ex) } 3 + 4(x-6) = -21 + 4x$$

$$\begin{array}{r} 3 + 4x - 24 = -21 + 4x \end{array}$$

$$\begin{array}{r} -21 + 4x = -21 + 4x \\ -4x \quad -4x \end{array}$$

$$-21 = -21$$

$\boxed{\text{All Real Numbers}}$

$$\text{Ex) } 36 - 8x = -(x-5)$$

$$\begin{array}{r} 36 - 8x = -x + 5 \\ +8x \quad +8x \end{array}$$

$$\begin{array}{r} 36 = 7x + 5 \\ -5 \quad -5 \end{array}$$

$$\begin{array}{r} 31 = 7x \\ \div 7 \quad \div 7 \end{array}$$

$$\boxed{\frac{31}{7} = x}$$

HW - One-step and Multi-Step Equations Worksheet