

Key

Review Packet Final Fall Semester

1. $3(x+2) + 2x = -5x + 10$

$$3x + 6 + 2x = -5x + 10$$

Distributive Prop.

$$5x + 6 = -5x + 10$$

$$+5x \quad +5x$$

add. prop. of eq.

$$10x + 6 = 10$$

$$-6 \quad -6$$

sub. prop. of eq.

$$\frac{10x}{10} = \frac{4}{10}$$

$$\frac{10x}{10} = \frac{4}{10}$$

div. prop. of eq.

$$\boxed{x = \frac{2}{5}}$$

2. $-2(x+3) = 6$

$$\boxed{-2x + 6 = 6}$$

← Did not distribute the negative!

$$-6 \quad -6$$

$$-2x = 0$$

$$x = 0$$

3. $y = 150 + 60x$ when $x = 3$

$$y = 150 + 60(3)$$

$$y = 150 + 180$$

$$y = \boxed{330 \text{ miles from home}}$$

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

$$5x - 5 + 3x + 1 = \frac{1}{2}x - 1 + 3$$

$$8x - 4 = \frac{1}{2}x + 2$$

$$7\frac{1}{2}x = 6$$

$$\frac{15}{2}x = 6$$

$$\boxed{x = \frac{12}{15}}$$