

## 6.2 Notes: Solving Linear Equations and Proportions

### 1-7 Solving Linear Equations

1)  $14(3x - 2) + 10 = 12(2x - 1) + 48$

2)  $3(2x - 5) - 7(x - 2) = 4(2x - 3) + 2$

3)  $9x + 7 = 3(3x + 1)$

4)  $7x + 9 = 9(x + 1) - 2x$

5)  $\frac{2x}{3} = 7 - \frac{x}{2}$

6)  $\frac{1}{8}(15 - 3x) = x + \frac{1}{2}$

7)  $\frac{3x}{5} - x = \frac{x}{10} - \frac{5}{2}$

### 8-11 Solving Proportions

$$8) \frac{22}{60-x} = \frac{2}{x}$$

$$9) \frac{x+10}{10} = \frac{x-2}{4}$$

10) The length of a man's forearm is in proportion to the length of his hand. The length of a John's hand is 8 inches and the length of his forearm is 12 inches. What is the length of Tom's hand if his forearm has a length of 15 inches?

11) The amount of commission a realtor earns is proportional to the price of the house she/he sells. Jane earned \$5700 on a house that sold for \$95,000. How much did a house sell for, if Jane made \$10,000 in commission?