Name:_____   Date:_____
Notes
Algebra Section 3.1
Pages 134-140

Goal: "You will solve one-step equations"

Vocabulary:

Inverse Operations: Two _____ that _____ each other.

     Examples: _____ and _____

                        _____ and _____

                        _____ and _____

Key Concepts:

To solve an equation you must _____ the _____.

Whatever you do to _____ _____ of the equation _____

_____.

You must _____ all your _____!!!

Addition and Subtraction:

Examples: $x + 8 = 11$ <u>Check</u> $x - 10 = 15$ <u>Check</u>

Try These:

Ex: $x + 7 = 4$ ***Ex***: $x - 12 = 3$ ***Ex***: $x - 19 = 5$ ***Ex***: $x + 4 = 15$

Ex: $x + 5 = -4$ ***Ex***: $x - 12 = -3$ ***Ex***: $12 + x = -15$ ***Ex***: $x - 10 = -45$

Ex: $x + \frac{4}{5} = -9$ ***Ex***: $x - 2\frac{1}{2} = -12$ ***Ex***: $1\frac{1}{3} + x = -1$ ***Ex***: $x - 11\frac{2}{3} = -4$

Ex: $x + 2.7 = -6.4$ ***Ex***: $x - 3.9 = -2.2$ ***Ex***: $1.2 + x = -15.8$ ***Ex***: $x - 3.8 = -16$

Multiplication and Division:
Examples:

$$3x = 18 \qquad \frac{x}{8} = 10 \qquad \frac{3}{5}x = 9 \qquad -x = 3$$

Try These:

Ex: $-6x = 48$ **Ex:** $\frac{x}{-4} = -7$ **Ex:** $-\frac{2}{7}x = 4$

Ex: $\frac{5}{6}w = 10$ **Ex:** $\frac{2}{3}p = 14$ **Ex:** $9 = -\frac{3}{4}n$

Ex: $-8 = -\frac{4}{5}v$ **Ex:** $9x = 3$ **Ex:** $-8 = 2.5v$

Word Problems: (Write an equation and then solve)

Ex: In the 2004 Olympics, Shawn Crawford won the 200 meter dash. His winning time was 19.79 seconds. Find his average speed to the nearest tenth of a meter per second.

Ex: What if Crawford ran the 100 meter dash at the same speed as the 200? How long would it take him to run it?

Ex: In the 2004 Olympics, Inge de Brujin won the 50-meter freestyle with a time of 24.58 seconds. What was her average speed?

Ex. You made loom bracelets which costs $0.75 each to make. You sell them for $1.50 each. You made 200 bracelets and sold 150 of them. What was the profit made?