CP Algebra 2 **Name:** _____
Notes: Word Problems

1.) In one day Machine A caps twice as many bottles as Machine B. Machine C caps 500 more bottles than Machine A. The 3 machines cap a total of 60,000 bottles in a day. How many bottles does each machine cap in one day?

4-Step Plan for Solving Word Problems:

1.)

2.)

3.)

4.)

"Perimeter Problems"

2.) You have 480 feet of fencing to enclose a rectangular garden. You want the length of the garden to be 30 feet greater than double the width. Find the dimensions of the garden if you use all the fence.

"Uniform Motion Problems" - Object moving at a constant rate.

3.) Jill walked at a constant rate for 2 hours and then ran at twice that rate for half an hour. She traveled a total of 18 km. What was her walking rate?

4.) A motorboat's speed in calm water is 8 mph. The rate of the river current is 2 mph. It takes 4 hours for the boat to make the trip upstream from the dock to Royal Island then back downstream to the dock. How far is Royal Island from the dock?

"Work Problems" - People or machines working at different speeds.

5.) A custodian can set up chairs for a concert in 50 minutes. His assistant can do the same job in 75 minutes. How long does it take the custodian and his assistant to do the job working together, if they work at the same rate?

6.) A tank can be filled by pipe A in 3 hours and by pipe B in 5 hours. When the tank is full, pipe C can drain it in 4 hours. If the tank is initially empty and all three pipes are opened simultaneously, how many hours will it take to fill the tank?

7.) Worker A can finish a job in 4 hours. When working at the same time as Worker B, they can finish the job in 2 hours. How long does it take for Worker B to finish the job if he works alone? (If they work at the same independent rates together as they do while alone.)

"Number Problems"

8.) The sum of 4 consecutive integers is 110. What are the 4 integers?