Algebra   Name:_____

Rectangle and Consecutive Integer Problems   Period:_____   #: _____

1. The length of a rectangle is 3 in. more than its width. The perimeter of the rectangle is 30 in. What are the width and length of the rectangle?

    a. Using a let statement, define a variable for the width of the rectangle. Then write an expression for the length in terms of the width.

    b. Draw a diagram of this rectangle.

    c. Using the perimeter formula, $P = 2l + 2w$, write an equation to determine the width and length of this rectangle. Solve your equation.

    d. What is the length and width of this rectangle?

2. The length of a rectangle is 8 in. more than its width. The perimeter of the rectangle is 24 in. What are the width and length of the rectangle? (hint: follow the steps used in #5 → Define your variables, Draw a diagram, Write and solve an equation, Answer the question).

3. The length of a rectangular garden is 3 yd more than twice its width. The perimeter of the garden is 36 yd. What are the width and length of the garden?

4. The sum of three consecutive integers is 915. Define your variables. Then write and solve and equation to find the three consecutive integers. Check your answer.

5. The sum of two consecutive even integers is 118. Define your variables. Then write and solve an equation to find the two consecutive even integers. Check your answer.

6. The sum of two consecutive odd integers is 118. Define your variables. Then write and solve an equation to find the two consecutive even integers. Check your answer.