**Homework 3.3** Name: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Math 3 Block: \_\_\_\_\_\_\_\_\_\_\_

**Quadratic Word Problem Set**

**Directions:** Solve the following word problems on notebook paper. Be sure to show all work and highlight your final answer. NO credit will be given without work.

1. The length of a rectangle is 4 inches more than the width. The area of the rectangle is 45 in2. Find the length and the width.
2. The base of a triangle is 3 cm longer than its height. The area is 35 cm2. Find the height.
3. A square poster had 9 in added to its width and 2 in subtracted from its height. The new poster now has an area of 102in2. How long was the original side of the square?
4. Find two consecutive positive integers whose product is 30.
5. Find two consecutive negative integers whose product is 56.
6. The area of a rectangular floor is 105 square feet. If its length is 1 more than twice its width, find the length and width of the floor.
7. A rectangular pond measures 3m by 5m. A concrete walkway of uniform width is constructed around the pond. If the walk and pond together cover an area of 35 m2, how wide is the walk?
8. The area of a square field is 225 yd2. How long is each side? What is the perimeter?
9. Joe wants to build a toy box for his sister. It is 2 feet high, and the width is to be 3 feet less than the length. If it needs to hold a volume of 80 cubic feet, find the length and width of the box.
10. What is the smallest of 3 consecutive positive integers if the product of the smaller two integers is six less than 6 times the largest?
11. The area of a triangular lot is 247 square yards. The base of the lot is 7 yards less than its height. Find the length of the base and height.
12. The larger leg of aright triangle is 7 cm longer than its smaller leg. The hypotenuse is 8 cm longer than the smaller leg. How many centimeters long is the smaller leg?
13. A rectangular pool measures 4yd by 5yd. A concrete deck of uniform width is constructed around the pool. The deck and pool together cover an area of 90yd2. How wide is the deck?