

Algebra I Worksheet #5 Unit 12 page 1 _____

Solve each of the following problems algebraically. Show your work neatly organized.

1. One number is one less than three times another. Their product is 10. What are the numbers?

2. One number is equal to the square of another. Their sum is 30. What are the numbers?

3. The length of a rectangle is one inch more than twice its width. The area of the rectangle is fifteen square inches. What are the dimensions of the rectangle?

4. The length of a rectangle is four feet more than three times its width. The area of the rectangle is 84 square feet. What are the dimensions of the rectangle?

Algebra I Worksheet #5 Unit 12 page 2

Solve each of the following problems algebraically. Show your work neatly organized.

5. The length of the hypotenuse of a right triangle is two inches less than twice the length of the shorter leg. The longer leg is two inches longer than the shorter leg. Find the length of each side.

6. The length of the hypotenuse of a right triangle is two inches more than three times the length of the shorter leg. The length of the longer leg is two inches more than twice the length of the shorter leg. Find the length of each side.

7. One leg of a right triangle is one inch longer than the other leg. The area of the triangle is six square inches. Find the length of each side. (There are three sides.)

8. A rectangular garden 20 feet long and 12 feet wide is surrounded by a rock path of uniform width. If the area of the path is 185 square feet, then what is its width?