Geometry and more Geometry

Formulas to remember:

Area of a circle: 

Circumference of a circle: 

Area of a square:  Perimeter of a square: 

Area of a triangle: 

Area of a rectangle:  Perimeter of a rectangle: 

Volume of a rectangle: 

And, of course, the Pythagorean Theorem gets used too.

For example:

Given a right triangle with one leg of 5 cm and the hypotenuse of 9, what is the length of the second leg?

Then find the area and the perimeter.

The problems in the Geometry quizzes are all word problems so let’s do some examples:

The perimeter of a rectangle is 50 feet and the width is 5 feet, what is the length?

Fill in what we know 50 = 2(5) + 2x solve for x

Given the following pair of triangles, what is the area of triangle ACD?



One half (3)(6)

Given this shape, what is the height?



Use the Pythagorean Theorem:  solve for height.

More Geometry!

Conversion Factors:

If a ribbon is 6 inches, how many yards is it?

If a wedge of cheese is 2 ounces, how many pounds is it?

Let’s look at parallel lines crossed by a transversal:



Note that there are only two angle measures among 8 angles. Let’s go through and mark the ones that are vertical angles and corresponding angles.

We can solve similar triangles using corresponding angle. Remember that corresponding angles in similar triangles are congruent and that side lengths are proportional. That last bit means that the SAME number is multiplies the sides from one triangle to another.



The triangle on the left is a 3-4-5 right triangle. The base of the one on the right is 2 cm. How long is the hypotenuse of the one on the right?

Let’s do a problem with a couple of steps now:

The area of a semi-circle is 36 insq. If you increase it’s radius by 2 inches what is the new area of the larger semi-circle?

A semi-circle is one-half a circle so ½ is our formula.



We’d go to 74 over pi under the radical.