Name _____ Class Period _____

Area of Circles Worksheet

First let's review finding the circumference of the following circles with the given radius or diameter. The formula for finding the circumference of a circle is: $C = \pi d$ or $2\pi r$. In all of the following problems, use 3.14 for π, round to the nearest hundredth.

1. radius of 3 inches $C =$ _____

   radius of 5 cm $C =$ _____

   diameter of 4 units $C =$ _____

   diameter of 5 ft. $C =$ _____

2. What is the difference between 2r and r^2? _____

_____

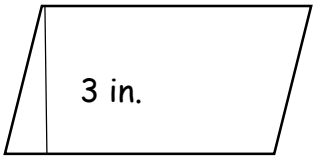
If r = 6, then 2r = _____ and r^2 = _____

It is important that we remember that 2r and r^2 are not the same thing, especially when we are finding the area of a circle.

3. What is the formula for finding the area of a parallelogram? _____

4. Find the area of the given parallelogram.

   A = _____



5. Write the formula for the area of a circle. A = _____

6. What is the area of a circle with a radius of 3 inches? _____

7. What is the area of a circle with a diameter of 36 meters? _____

8. Find the area of the circles with the given radius or diameter.

   r = 3 inches A = _____

   r = 5 cm A = _____

   d = 4 ft. r = _____ A = _____

   d = 12.7 m r = _____ A = _____

9. A circular oil spill has a diameter of 2.4 km. This oil spill is to be enclosed within a length of special flexible tubing. What is the area of the spill and how long must the tubing be?

A = _____

C = _____

10. A machine part is a square of side 3.25 inches with a quarter circle removed (see figure). Find the area of the white section.

S = 3.25 in.