

## 18. Calculating Circumference

Name \_\_\_\_\_

**Directions:** Please show all work, describe how you got the answer, and circle your final answer. If you use a calculator, say so, but also write out the calculations you did with the calculator.

**The Problem:** Marcus has a robot with a width from wheel to wheel of 15cm and he attached a pen to the back of one of the wheels. What is the circumference of the circle traced by the wheel of Marcus' robot when the robot is making a swing turn? What is the circumference of the circle traced by the wheel when the robot is making a point turn?

(Recall that a swing turn is when one wheel is moving and the other stays stopped, and a point turn is when one wheel moves forward and the other moves backward. Also, the circumference of a circle is equal to the diameter of the circle times pi [ $C = \pi * d$ ], or two times the radius of the circle multiplied by pi [ $C = \pi * 2 * r$ ].)

