

14. Sentry Calculation

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: Angelides was planning her program to do the Sentry challenge. The first part of the challenge requires the robot to go straight forward, so she measured the distance and found it was 65 cm. She used that measurement to calculate the number of wheel rotations she would need to have her robot move forward that distance. How many wheel rotations does she need to program her robot to solve this first part of the Sentry challenge? (Recall that the diameter of the standard wheels is 5.5 cm and the circumference of the standard wheels is 17.27 cm.)