

28. Ratios to Distance

Name _____

Directions: Show all work, describe how you got the answer using mathematics and words, and circle your final answer

The Problem: Suppose Brian made a dance routine with this robot and programmed its motors to rotate 7,200 degrees. How many centimeters straight forward would you expect Brian's robot to travel? *Explain your answer using math and words.*

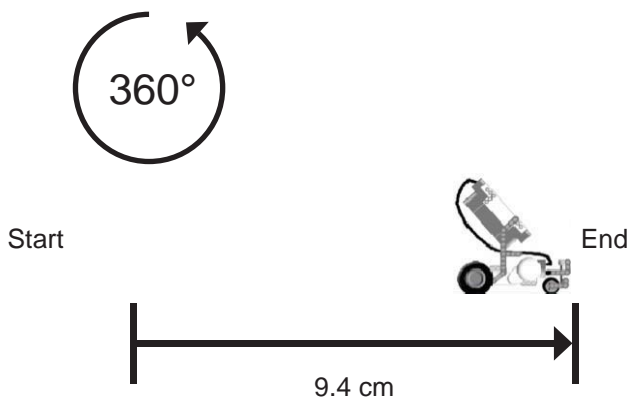


Figure 1: When this robot was programmed to do 360° of motor rotations it traveled straight 9.4 centimeters.

Some equivalent ratios:

$$9.4\text{cm} : 360^\circ$$

$$1\text{cm} : 38.3^\circ$$

$$18.8\text{cm} : 720^\circ$$

$$2\text{cm} : 76.6^\circ$$

$$4\text{cm} : 153.2^\circ$$