

30. Synchronizing Distance

Name _____

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

The Problem: In order to synchronize your two robots, you first tried to make them both travel the same straight distance. When your original robot was programmed to do 1100 degrees of wheel rotations it traveled forward 53.7 centimeters. You put 1100 degrees of motor rotations on your second robot, but it only traveled forward 29.2 centimeters. What value would you try out for motor rotations on the second robot to get it to go the same distance as the first robot? *Explain your answer using math and words.*

Robot 2			
Trial	Target Distance (centimeters)	Motor Rotations (degrees)	Actual Distance (centimeters)
1	53.7 cm	1100	29.2 cm
2	53.7 cm	?	53.7 cm