

17. Calvin's robot 2

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: Calvin was trying to make his robot make a swing turn right 90 degrees for the Sentry Challenge. He first programmed his robot to do 90 degrees of wheel rotation, but the robot barely turned at all, not even close to 90 degrees. He then used trial and error and figured out that he needs to program 475 degrees of wheel rotation to have the whole robot turn 90 degrees. Given that Calvin's robot turns 90 degrees when he programs in 475 degrees of wheel rotation, how many degrees will Calvin's robot turn when he programs in 90 degrees of wheel rotation?