

6. Wheel Dispute

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: Suppose that Mr. Hughes determined that for the average robot it takes 5.25 wheel rotations for the robot to travel forward three floor tiles. You and your partner did your program in degrees instead of rotations, but forgot what values you used. You are unsure but seem to remember that for one floor tile you used 460 degrees of wheel rotations. Your partner disagrees and thinks you used 620 degrees of wheel rotation for one floor tile. Assuming Mr. Hughes is correct, whose value, yours or your partner's, is more likely to be the value that you used?