3.) An architect is making a plan for a new circular playground. If the playground has a diameter of 64m, how much fencing will need to go up to keep the kids in the circle? Keep your answers in terms of pi.

4.) Want to travel around the world in 80 days? If the diameter of the Earth is 12,800 kilometers, calculate your speed in kilometers per hour if you were to take 80 days to circumnavigate the Earth about the equator. Round to the nearest hundredth.

5.) Mr. Wood's dog likes to run unique patterns in his backyard. One of the patterns happens to be a circle with a radius of $2\frac{1}{2}$ yards. The other pattern is shown below (not to scale). In which pattern does Mr. Wood's dog run a longer distance (in 1 "lap") and by how much? Round to the nearest hundredth.

$1\frac{2}{3}$ yds.

2 yds.

3 yds.

$2\frac{2}{3}$ yds.

$1\frac{1}{3}$ yds.
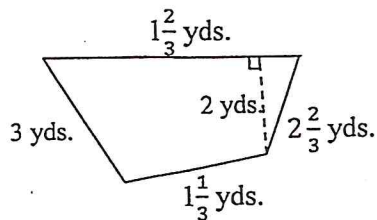
6.) There are 2 dots on a CD. One is on the outside edge of the CD, 6cm away from the center. The other dot is on the inside edge, 1.5cm away from the center. Someone spins the CD slowly on the table. Assume for this problem the CD makes one revolution in 3 seconds.

a) Do you think the dots are traveling at the same speed? (Opinion Question!)

b) Calculate the speed of both dots ("inside" and "outside")
   Round your answers to the nearest hundredth.

1.5 cm

6 cm
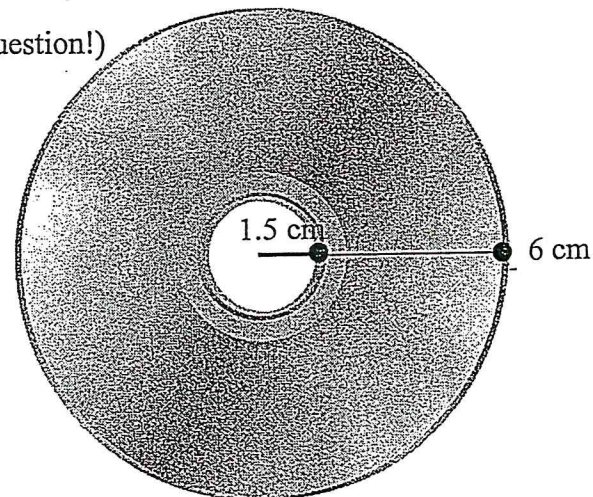
c) Is you answer from question A correct? Explain/Expand.