G7B-1 Investigation RECORDING PAPER Name _____

Find 9 circular objects. Five of them (#1-5 below) you must be able to measure around and across. Two of them (#6 and 7) you must be able to measure around but not across, such as a tree. Two of them (#8 and 9) you must be able to measure across but not around, probably because it is too big for your measuring tape.

Record all measurements in centimeters.

Object		Circumference	Diameter	
1.				
2.				
3.				
4.				
5.				
6.			XXXXX	
7.			XXXXX	
8.		XXXXX		
9.		XXXXX		

1. In the last column on your recording paper, calculate circumference ÷ diameter ($\frac{C}{D}$).
   What do you notice?

2. Pick a value for $\frac{C}{D}$ = _____

a. Use your value for $\frac{C}{D}$ to calculate the circumference of object #6 and #7.

What did you do to calculate circumference?

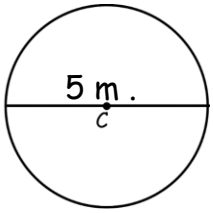
b. Use your value for $\frac{C}{D}$ to calculate the diameter of objects #8 and #9.

What did you do to calculate diameter?

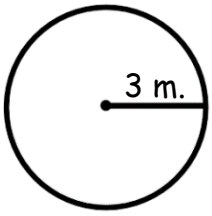
c. How accurate do you believe your calculations are? Explain.

3. How could you calculate the circumference or diameter EXACTLY?

Try these:

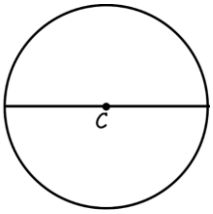


Circumference = _____



Diameter: _____

Circumference: _____



Circumference = 8π m.

Diameter = _____

What did you do?