



## Proportional Measures For circles

Name \_\_\_\_\_

Date \_\_\_\_\_

**Do the diameter and the circumference of all circles form a proportion? To investigate this question, follow the steps below:**

1. Use 3.14 for  $\pi$  in the equation  $c = \pi d$  to find six ordered pairs for the diameter (x) and circumference (y) lengths of six circles. List these in the table.

Diameter	Circumference
1	
2	
3	
4	
5	
6	

2. Write each ordered pair from the table as a ratio  $y:x$ . Find the decimal equivalent for each ratio.
3. Plot the ordered pairs for diameter and circumference on the grid below.
4. What is the approximate slope of the line?

5. How does the slope of the line compare to the  $y:x$  ratios?

6. Why do you think the slope of the line is  $\pi$ ?

