

Circumference vs Diameter

Name _____
1 2 3 4 5 6 7 8

Today's activity will explore a relationship between two **variables** for circular objects:
Circumference and Diameter.

Notice that the **units** for each variable are the same. This means that we are going to investigate a relationship, or pattern, that exists between these two variables (for all circular objects).

First, fill in the table below, measuring various objects:

<u>Circumference (cm)</u>	<u>Diameter (cm)</u>

Plot the data from the table into a graph on a separate document:

1. Label the y-axis "Circumference (cm)" and the x- axis "Diameter (cm)".
2. Plot each data set appropriately into the graph.
3. Analyze the pattern for your points. Do you see a relationship?

Analyze the graph:

Calculate the slope of your best-fit-line. Show your work on the graph
 $m =$

Describe the significance of your slope

What you will turn in:

You will have one document that includes your graph, data points, and two analysis questions. Your data should include the measured values from the entire class, with no repeated points.