**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period:\_\_\_\_\_\_\_**

**Pump Up the Volume!!!**

**Prediction:** Which cylinder do you think has the largest volume? Why?

**Determine the actual volume of each cylinder:**

|  |  |
| --- | --- |
| Cylinder 1 | Cylinder 2 |
|  |  |

**Confirm/Reject Prediction:** Which cylinder actually has the larger volume? How did you determine this?

***How can you maximize the volume of a cylinder by using only one 8 ½” by 11” piece of paper?***

**Hypothesis:** I can maximize the volume of a cylinder, using only one 8 ½” by 11” piece of paper, by….

**Test it Out….**

Write out any notes on what you did, calculations, etc.

|  |
| --- |
|  |

**Record Your Conclusion:**

Please answer the sentence below. Be sure to include the some of the following vocabulary words as you describe how to maximize the volume: **height, radius/diameter, circumference.**

Be sure to write about your strategy in approaching the problem, what worked, and what did not work.

In order to maximize the volume of a cylinder…

|  |
| --- |
|  |