

# CIRCLES - $\pi$ (PI)

NAME: \_\_\_\_\_



Thousands of years ago, people observed that circles of different sizes were similar. If you measure the **circumference** of any circle and divide it by its **diameter**, you will ALWAYS get the same answer. Later, this number was called, **Pi**, and represented by the Greek letter,  $\pi$ .

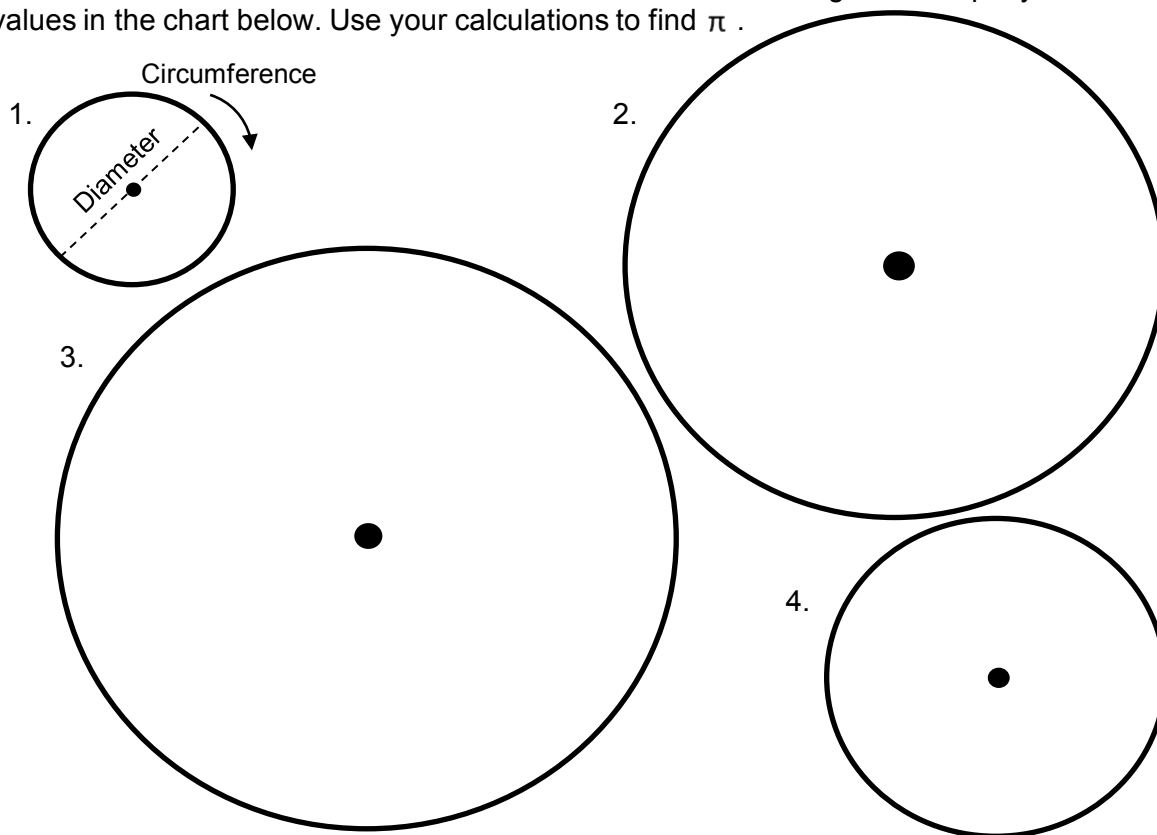
$$\text{Circumference} \div \text{Diameter} = \pi \qquad \pi = 3.141592653589\dots$$

$\pi$  (**Pi**) is an irrational number, which means it has an infinite number of decimal places (goes forever and ever), with no repeating pattern. So most of the time you can estimate Pi to **3.14**.

Now your turn. Cut out the ruler and carefully measure the diameter of each circle below. The circumference will be a little more challenging. Do you have any ideas on how to measure it?

Here is a hint: *It starts with "s" and ends in "g". It's footloose and totally free.*

Use either inches, centimeters, or millimeters to calculate the lengths and input your values in the chart below. Use your calculations to find  $\pi$ .



	Circumference	Diameter	$C \div D = \pi$	Actual answer for $\pi$
<b>Circle #1</b>				3.1415926535...
<b>Circle #2</b>				3.1415926535...
<b>Circle #3</b>				3.1415926535...
<b>Circle #4</b>				3.1415926535...

Why is your answer different than the actual  $\pi$  answer?