**First, Last Name** _____ **Core:** 1   2   3   4 **Date:**

Part A: Circumference and Radius of a Circle

1. Measure the radius of each circle on the handout in centimeters, and record the data in the first column below.
2. Use the formula $c = 2\pi r$ to calculate the circumference of each circle and record the data in the table below. (use $\pi = 3.14$)
3. Create a scale for the coordinate plane., and label both axes showing circumference and radius.
4. Graph the data in the coordinate plane and draw a neat line connecting the points

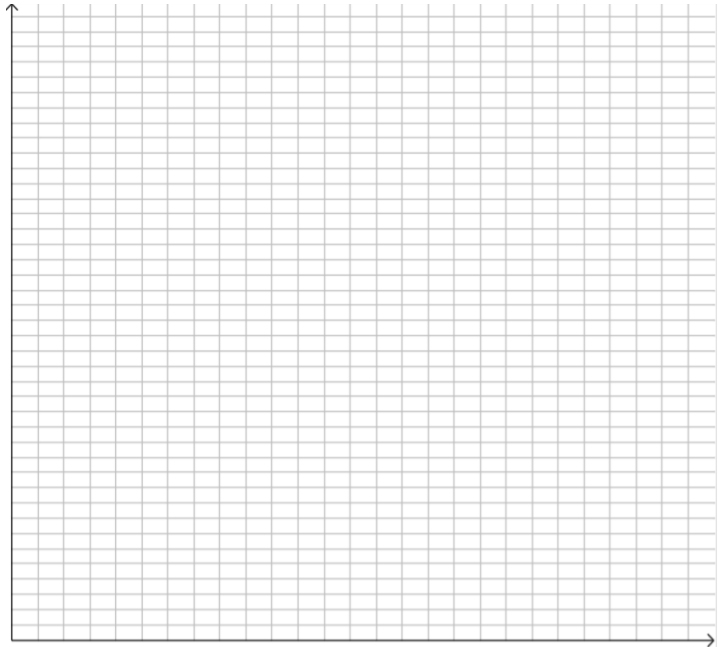| r	c	(r, c)
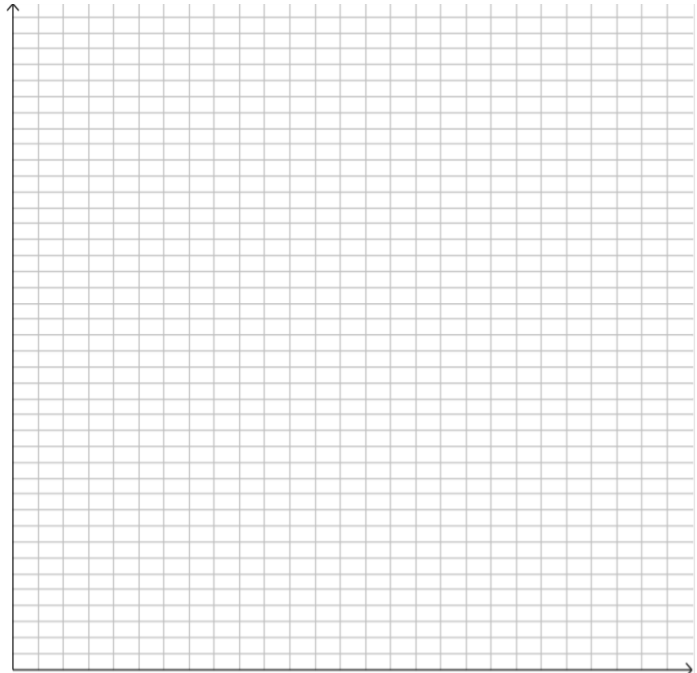
4. Is the circumference of a circle proportional to its radius? Explain.

_____

_____

5. What is the constant of proportionality? Explain.

_____

_____

Part B: Area and Radius of a Circle.

1. In the first column, copy the radii of the circles from the table in part A.
2. Use the formula $a = \pi r^2$ to calculate the area of the circles. Complete the table below. (use π= 3.14)
3. Create a scale for the coordinate plane to fit the data.
4. Plot the data in the coordinate plane.
5. Draw a neat line connecting the points.

r	a	(r, a)

4. Is the area of a circle proportional to its radius? Explain.

_____
_____
_____
_____

5. What is the constant of proportionality? Explain.

_____
_____
_____
_____