

# A Circles Area

Trace two circular objects on centimeter graph paper. Try to center the drawing at an intersection of grid lines. Use the centimeter units to make your measurements.

1. What is the diameter of the first circle? \_\_\_\_\_ What is the radius? \_\_\_\_\_
2. What is the diameter of the second circle? \_\_\_\_\_ What is the radius? \_\_\_\_\_
3. How are the diameter and the radius related? \_\_\_\_\_

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4. What is the area of each circle? First: \_\_\_\_\_ Second: \_\_\_\_\_  
 (To find the area, count the number of full squares first and record that number. Then try to piece together partial squares together to make “full” squares. Add the number of these squares to your first number.)

5. Record your data in the chart for the radius and area.

Object	Radius (r)	Area	$r^2$	$A/r^2$
1.				
2.				
3.				
4.				
5.				
6.				

6. Compute the average of the values in the last column. Your average should be close to 3.14 or pi. Use that value to write a formula for the area of a circle in terms of its radius.