Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Geometry Part 1 Test Study Guide

**Standards to be Assessed: MGSE7.G4** Given the formulas for the area and circumference of a circle, use them to solve problems; given an informal derivation of the relationship between the circumference and area of a circle. **MGSE7.G6** Solve real-world and mathematical problems involving area, volume, and surface area of two- and three-dimensional objects composed of triangles, quadrilaterals, polygons, cubes, and right prisms.

**You may find the following formulas helpful:**

Area of a Square or Rectangle: or Area of a Triangle: or

Circumference of a Circle: Area of a Circle: or

**Identify the radius & diameter for each circle. Then find the circumference & area for each. Use 3.14 for pi. Show all work. Include labels with your answers.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **1.**  AHC2_174_1.jpg  **radius: \_\_\_\_\_\_\_\_\_**  **diameter: \_\_\_\_\_\_\_**   |  |  | | --- | --- | | **CIRCUMFERENCE**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **AREA**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | | **2.**  AHC2_174_2.jpg  **radius: \_\_\_\_\_\_\_\_\_**  **diameter: \_\_\_\_\_\_\_**   |  |  | | --- | --- | | **CIRCUMFERENCE**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **AREA**  **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | |

**For #3 – 5, read each question carefully. Show all work. Include labels with your answers.**

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| 3. The radius of a birthday cake is 5 cm. Icing will decorate the circumference of the cake. How much icing is needed? Use 3.14 for pi.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 4. An area rug has a diameter of 6 feet. How many square feet will the rug cover? Use 3.14 for pi.  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ | 5. Cora decided to dig a flower garden in the shape of a triangle. She wants the base to be 11 feet and the height to be 7.2 feet. How much space will her flower garden take up?  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |

**Find the area of each composite figure. Use 3.14 for pi where applicable. Show all work. Include labels with your answers.**

|  |  |
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| **6.**    **Total Area: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **7.**    **Total Area: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |
| **8.**  **Total Area: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **9.**  **Total Area: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

**Find the area of the shaded regions. Use 3.14 for pi where applicable. Show all work. Include labels with your answers.**

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| **10.**  **Area of Shaded Region: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **11.**  **Area of Shaded Region: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **12.**    **Area of Shaded Region: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |