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: $A=lw$ or $A=bh$ Area of a Triangle: $A= \frac{bh}{2}$ or $A=0.5bh$

Circumference of a Circle: $C= πd$ Area of a Circle: $A= πr^{2}$ or $A= π∙r∙r$

**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.**

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| **1.**AHC2_174_1.jpg**radius: \_\_\_\_\_\_\_\_\_****diameter: \_\_\_\_\_\_\_**

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| --- | --- |
| **CIRCUMFERENCE****\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **AREA****\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

 | **2.**AHC2_174_2.jpg**radius: \_\_\_\_\_\_\_\_\_****diameter: \_\_\_\_\_\_\_**

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| **CIRCUMFERENCE****\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** | **AREA****\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |

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**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: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |