

**MATH 1080 TRIGONOMETRY**

*7.1 Worksheet – Angles*

Name \_\_\_\_\_

Date \_\_\_\_\_

1. Convert  $-225^\circ$  to radians.

2. Convert  $\frac{8\pi}{5}$  to degrees.

3. Determine the measure of an angle  $\theta$ , that is coterminal with  $-840^\circ$  such that  $0 < \theta \leq 360^\circ$ .

4. Determine the measure of an angle  $\theta$ , that is coterminal with  $\frac{17\pi}{3}$  such that  $0 < \theta \leq 2\pi$ .

5. For a circle with diameter 12 inches, determine the length of an arc subtended by the central angle of  $220^\circ$ . Round to the nearest hundredth.

6. Determine the area of a sector of a circle that has a central angle of  $\frac{3\pi}{2}$ , and a radius of 4 cm. State the exact value, and the approximate value to the nearest tenth.

7. The diameter of a Ferris wheel is 80 feet. If the Ferris wheel makes one revolution every 45 seconds, determine the linear velocity of a person riding in the Ferris wheel. Round to the nearest tenth.