

Angles and Radian Measure Worksheet

Change each degree measure to radian measure in terms of π .

1. 36° 2. -145° 3. 870°

Change each radian measure to degree measure.

4. $\frac{3\pi}{16}$ 5. 4π 6. 12.85

Given the measure of the central angle, find the measure of its intercepted arc with a radius of 10 cm.

7. $\frac{4\pi}{7}$ 8. 42° 9. 110°

Find the area of each sector to the nearest tenth, given its central angle, θ , and the radius of the circle.

10. radius = 14cm 11. radius = 12 ft. 12. radius = 20 m
 $\theta = 282^\circ$ $\theta = \frac{\pi}{6}$ $\theta = 115^\circ$

13. The diameter of a circle is 22 in. If a central angle measures 78° , find the length of the intercepted arc. Then find the area of the sector.

14. A pendulum is 22.9 cm long, and the bob at the end of the pendulum travels 10.5 cm. Find the degree measure of the angle through which the pendulum swings.