

Convert the degree measure to radians. Leave answer as a multiple of π .

1) 30°

2) 288°

Convert the radian measure to degrees. Round to the nearest hundredth if necessary.

3) $\frac{\pi}{4}$

4) $\frac{5\pi}{12}$

Find the exact value without using a calculator.

5) $\cos\left(\frac{2\pi}{3}\right)$

6) $\tan\frac{-7\pi}{4}$

Find the length of an arc intercepted by a central angle θ in a circle of radius r . Round your answer to 1 decimal place.

7) $r = 15.64 \text{ cm.}; \theta = \frac{5}{4}\pi \text{ radians}$

Find the area of a sector of a circle having radius r and central angle θ . Express the answer to the nearest tenth.

8) $r = 20.0 \text{ m}, \theta = 20^\circ$

Answer Key

Testname: WORKSHEET 3.1 & 3.2 RADIAN

1) $\frac{\pi}{6}$

2) $\frac{8\pi}{5}$

3) 45°

4) 75°

5) $-\frac{1}{2}$

6) 1

7) 61.4 cm

8) 69.8 m²