RADIAN MEASURE

TEXT: 4.2

LAST NAME	FIRST NAME	DATE

1 (3 points). Find the radian measure of the given angle, state the answer as a multiple of π.

(a) $-70^\circ =$

(b) $28^\circ =$

(c) $2025^\circ =$

2 (3 points). Find the radian measure of the given angle, state the answer as a decimal rounded to 3 significant digits.

(a) If $B = \sqrt{512}$ degrees, then $B =$

(b) $(-13\pi)^\circ =$

(c) $17'17'' =$

3 (6 points). Find the degree measure of the given angle. Round your answers to 4 significant digits.

(a) $\dfrac{\pi}{7} =$

(b) $-\dfrac{4}{5}\pi =$

(c) $1984\pi =$

(d) $-7 =$

(e) $\sqrt{2} =$

(f) $-0.3141593 =$

4 (1 point)**.** Find the length of the arc of the unit circle corresponding to the angle of 68°. Round your answers to 3 significant digits.

5 (1 point)**.** An amphitheater seating area is shaped as a sector of a circle with the radius of 35 meters and the angular measure of 155°. Find the length of the arc in meters. Round your answers to 3 significant digits.

6 (1 point)**.** A racing track is shaped as an arc of a circle with radius 900 feet, and the length of the track is 1450 feet. Find the corresponding angle and state it in radians. Round your answers to 3 significant digits.