King Fahd University of Petroleum and Minerals

Prep-Year Math Program

Math 002 - Term 142

Recitation (6.1)

Question 1:

a) Convert $-108°$ to radian measure.

b) Convert $\frac{9\pi}{5}$ radians to degree measure.

Answer: **(a):** $-108° = -\frac{3\pi}{5}\ radians$ **(b):** $\frac{9\pi}{5} = 324°$

Question 2: Find the smallest positive angle coterminal with the angle $\theta = -\frac{33\pi}{5}$.

Answer: The smallest positive coterminal is $\frac{7\pi}{5}$

Question 3: Find the reference angle of the following angles

(a): $\theta = \frac{9\pi}{5}$ **(b):** $\theta = 10$

Answer: **(a):** $\frac{\pi}{5}$ **(b):** $10 - 3\pi$

Question 4:

The length s of the arc that subtends the central angle $\theta = 35^\circ\ 30'$ in a circle of diameter $d = 720$ centimeter is

A) 71π cm

B) 36π cm

C) 180π cm

D) 90π cm

E) 31π cm

Answer: 71π cm

Question 5: All angles θ in radian measure that satisfy $-3\pi \le \theta \le \pi$ and θ is coterminal with $\frac{3\pi}{4}$ are:

A) $-\frac{13\pi}{4}, -\frac{5\pi}{4}$

B) $-\frac{5\pi}{4}, \frac{3\pi}{4}$

C) $-\frac{5\pi}{4}, -\frac{3\pi}{4}, \frac{7\pi}{4}$

D) $-\frac{9\pi}{4}, -\frac{5\pi}{4}, -\frac{\pi}{4}$

E) $-\frac{5\pi}{4}, -\frac{\pi}{4}, \frac{7\pi}{4}$

Answer: $-\frac{5\pi}{4}, \frac{3\pi}{4}$