

King Fahd University of Petroleum and Minerals

Prep-Year Math Program

Math 002 - Term 132

Recitation (5.3)

Question 1:

(a): Find the exact value of $\cos 136^\circ + \cos 316^\circ$

(b): Find the exact value of $\cot(675^\circ) - \cos(240^\circ)$

Answer: (a): 0 (b): $-\frac{1}{2}$

Question 2: If $\sec \theta = -\frac{2\sqrt{3}}{3}$ and $\cot \theta = \sqrt{3}$, then a value of θ is:

- A) 210° B) 240° C) 225° D) 150° E) 330°

Answer: A) 210°

Question 3: If $\tan 40^\circ = 0.84$, then $3 \tan 140^\circ + 5 \cot 410^\circ =$

- (A) 1.68
 (B) 6.72
 (C) 1.84
 (D) -6.72
 (E) -1.68

Answer: (A): 1.68

Question 4: If $\sin(9^\circ) = a$, then $\tan^2(81^\circ) =$

- (A) $\frac{1-a^2}{a^2}$ B) $\frac{a^2}{a^2+1}$ C) 1 D) -1 E) $\frac{1+a^2}{a^2}$

Answer: (A) $\frac{1-a^2}{a^2}$