

King Fahd University of Petroleum and Minerals
Prep-Year Math Program
Math 002 - Term 132
Recitation (5.2)

Question 1: $\sec(\theta - 67^\circ 10') =$

- A) $\csc(157^\circ 10' - \theta)$ B) $\frac{1}{\cos(\theta + 67^\circ 10')}$ C) $\frac{1}{\cos(\theta + 23^\circ 50')}$
 D) $\frac{1}{\cos(\theta + 23^\circ 50')}$ E) $\csc(\theta - 22^\circ 50')$

Question 2: If the terminal side of an angle θ in standard position, is defined by $6x + 8y = 0$, $y < 0$ then $10\cos\theta - 12\tan\theta =$

- A) 17 B) -17 C) -1 D) 1 E) 24

Answer: A) 17

Question 3: Which of the following statement is possible?

- (a): $\tan\theta = \frac{22}{7}$
 (b): $\cos\theta = \frac{4}{3}$
 (c): $\sin\theta = \frac{3}{2}$
 (d): $\csc\theta = \frac{1}{2}$
 (e): $\sec\theta = 0$

Question 4: If $\tan\theta = 4$ and $P(-3, y)$ is a point on the terminal side of θ in standard position, then $\sec\theta =$

- (A): $\sqrt{17}$
 (B): $-\frac{5}{3}$
 (C): $-\sqrt{17}$
 (D): $-\frac{1}{4}$
 (E): $-\frac{\sqrt{17}}{4}$

Answer: (C): $-\sqrt{17}$

Question 5: If $\tan\theta = 2\sqrt{3}$ and θ is in quadrant III. Find $4\cos\theta + \sin^2\theta$.

Answer: $\frac{-4\sqrt{13} + 12}{13}$