

King Fahd University of Petroleum and Minerals
Prep-Year Math Program
Math 002 - Term 151
Recitation (5.1)

Question1:

If α is of the complement of the angle $75^\circ 34' 55''$ and β is the supplement of the angle $50^\circ 16'$, then find the measure of the angle $\alpha + \beta$.

Answer: $\alpha + \beta = 4^\circ 25' 5'' + 129^\circ 44' = 144^\circ 9' 5''$

Question2:

- a) Find the smallest positive angle coterminal with the angle $\theta = -1640^\circ$.
- b) Indicate the quadrant in which the angle $\theta = -2780^\circ$ terminates.

Answer: (a): 160° (b): quadrant II.

Question3:

- a) Write 35.76° as DMS (Degree Minute Second) Format.
- b) Write $26^\circ 12' 27''$ as decimal degree.

Answer: (a): $35^\circ 45' 36''$ (b): 26.2075°

Question4 Which one of the following is **NOT** coterminal with -361° ?

- A) -1°
- B) 1°
- C) 359°
- D) -721°
- E) -1081°

Answer: (b): 1° is NOT coterminal with -361°

Question5

In a right triangle, one angle is $31^\circ 42' 17''$, the other acute angle is:

- A) $58^\circ 17' 43''$
- B) $58^\circ 42' 17''$
- C) $148^\circ 17' 43''$
- D) $58^\circ 37' 48''$
- E) $59^\circ 18' 43''$

Answer: (a): $58^\circ 17' 43''$