

Text: pg. 126/ #1 – 10
pg. 129/ #1 – 3, 6, 13

1. Determine three other angles in standard position which have the same reference angle as:
 - a) 40°
 - b) 170°
 - c) 280°

2. Each point is on the terminal arm of angle θ in standard position. Determine the exact values of $\sin \theta$, $\cos \theta$, & $\tan \theta$:
 - a) $(-3, -4)$
 - b) $(6, -2)$

3. Solve to the nearest degree. $0 \leq \theta < 360^\circ$
 - a) $4 \sin \theta - 1 = 0$
 - b) $2 \sin \theta - 4 = 7 \sin \theta$
 - c) $10 \cos^2 \theta - 4 = 0$

4. Solve **without the aid of a calculator** to the nearest degree. $0^\circ \leq \theta < 360^\circ$
 - a) $3 \cos \theta = \cos \theta + 1$
 - b) $-4 \sin^2 \theta + 1 = 0$
 - c) $3 \cos^2 \theta - 1 = 2$
 - d) $9 \sin \theta + 1 = 8 \sin \theta$
 - e) $3(2 \tan \theta - 1) + 4 = 5 \tan \theta$

5. Solve to the nearest degree, $0 \leq \theta < 360^\circ$, if θ is an angle in standard position with a terminal arm point:
 - a) $(-1, -4)$
 - b) $(3, -4)$

KEY

1. a) $140^\circ, 220^\circ, 320^\circ$
b) $10^\circ, 190^\circ, 350^\circ$
c) $80^\circ, 100^\circ, 260^\circ$
2. a) $-\frac{4}{5}, -\frac{3}{5}, \frac{4}{3}$
b) $-\frac{1}{\sqrt{10}}, \frac{3}{\sqrt{10}}, -\frac{1}{3}$
3. a) $14^\circ, 166^\circ$
b) $223^\circ, 307^\circ$
c) $51^\circ, 129^\circ, 231^\circ, 309^\circ$
4. a) $60^\circ, 300^\circ$
b) $30^\circ, 150^\circ, 210^\circ, 330^\circ$
c) $0^\circ, 180^\circ$
d) 270°
e) $135^\circ, 315^\circ$
5. a) 256°
b) 307°