QUIZ 4.1 – 4.2

1. Sketch each angle in standard position, and convert each of them in radians (exact values).
a) 60$°$

b) 315$°$

c) -210$°$

d) 600$°$
2. Sketch each angle in standard position, and convert each of them in degrees (exact values).
a) $\frac{π}{2}$

b) $\frac{4π}{3}$

c) $-\frac{2π}{9}$
3. Determine two coterminal angles for each of the following angles. Choose one positive and one negative angle.
a) 349$°$

b) $\frac{9π}{4}$
4. Determine, to the nearest hundredth, the arc length corresponding to a 195$°$ central angle on a circle with radius 15mm.
5. Complete this diagram in radians for $-\frac{π}{2}\leq θ\leq 2π$ and give the coordinates of the corresponding points on the unit circle.

6. a) What is the equation of the unit circle?

b) Determine if the following points are on the unit circle or not. Show your work.
 i) $\left(-\frac{\sqrt{2}}{2}, -\frac{\sqrt{2}}{2}\right)$

 ii) $\left(\frac{\sqrt{7}}{2}, -\frac{1}{7}\right)$
7. Determine the missing coordinate for each of the following points on the unit circle. Make a drawing to illustrate your answer.
a) A $\left(x,\frac{5}{13}\right)$ in quadrant I.

b) B $\left(\frac{1}{6}, y\right)$ in quadrant IV
8. Determine the angle $θ$ in standard position $0\leq θ\leq 2π$, corresponding to the following coordinates:
a) P($θ$) = (-1, 0)

b) P($θ$) = $\left(\frac{\sqrt{3}}{2}, -\frac{1}{2}\right)$

c) P($θ$) = $\left(-\frac{1}{\sqrt{2}}, \frac{1}{\sqrt{2}}\right)$
9. Determine the exact coordinates of the following points on the unit circle.
a) $P\left(-\frac{π}{4}\right)$

b) $P\left(\frac{23π}{6}\right)$