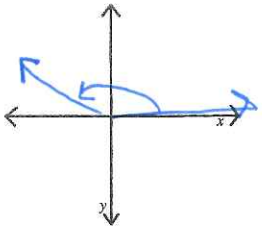
Unit Circle Practice Test

A) The first part of this test will be filling out a blank unit circle...the **Degree** measures, the **Radian** measures and the **Coordinates** for each point on the circle. Moodle has a copy of a completed Unit Circle. Be sure you can re-create it.

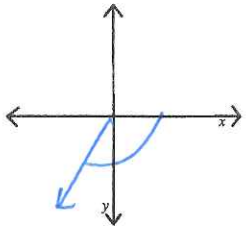
B) Check your answers to this test with the solution key on Moodle

**#1-3, Draw each in *standard position*.**

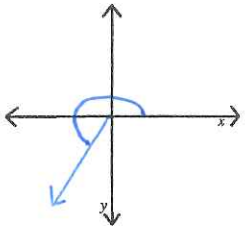
1. 165°



2. $-\frac{6\pi}{11}$



3. 4 radians

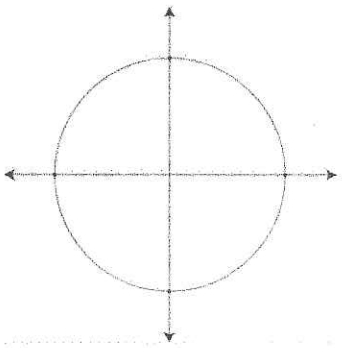


**#4-6, Find the *reference angle* for each.**

4. $\frac{3\pi}{4}$ $\frac{\pi}{4}$

5. -100° 80°

6. $\frac{-10\pi}{3}$ $\frac{\pi}{3}$



**#7-8, Find a positive and a negative *coterminal angle*. (units remain the same)**

7. 248°

608° / -112°

8. $\frac{8\pi}{7}$ $\frac{-6\pi}{7}$, $\frac{22\pi}{7}$

**#9-10, *Convert* from measuring an angle in degrees to radians, or vice-versa.**

9. $\frac{8\pi}{5}$

288°

$\frac{180}{\pi} = \frac{x}{\frac{8\pi}{5}}$ = 8/5(180)

10. 75°

$\frac{180}{\pi} = \frac{75}{x}$

$180x = 75\pi$

$\frac{180}{180} = \frac{15\pi}{36} = \frac{5\pi}{12}$

**#11-13, Use your unit circle to answer each *Trigonometric* equation**

11. Sin 315° = $\frac{-\sqrt{2}}{2}$

12. Cos $\frac{11\pi}{4}$ = $\frac{-\sqrt{2}}{2}$

13. Tan $\frac{4\pi}{3}$ = $\sqrt{3}$

$\frac{-\sqrt{3}}{2} \div \frac{-2}{1} = \frac{\sqrt{3}}{2}$

$\frac{-1}{2}$ 2

**14, Solve for the unknown. Answer in *radians*. (1 pt)** $\sin\theta = -\frac{\sqrt{3}}{2}$

$\frac{4\pi}{3}$ or $\frac{5\pi}{3}$