Math 1060-5
Friday, August 31, 2012
Directions: Show all work for full credit. Clearly indicate all answers. Simplify all mathematical expressions completely. No calculators are allowed.

1. In what quadrant does the angle $-\frac{\pi}{12}$ lie? (10 points)

This angle is coterminal with $\frac{23 \pi}{12}$, so it is in quadrant IV.
2. Give two coterminal angles for $45^{\circ}$. (10 points)

Some angles that are coterminal with $45^{\circ}$ are $405^{\circ}, 765^{\circ},-315^{\circ}$, and $-675^{\circ}$. There are infinitely many possible solutions, but they are all a multiple of $360^{\circ}$ away from $45^{\circ}$.
3. Convert $30^{\circ}$ to radians. ( 10 points)

$$
30^{\circ} \cdot \frac{\pi}{180^{\circ}}=\frac{\pi}{6}
$$

4. Convert the following angle from radians to degrees, and sketch the angle in standard position: (20 points)

$$
\frac{7 \pi}{10}
$$



$$
\frac{7 \pi}{10} \cdot \frac{180^{\circ}}{\pi}=126^{\circ}
$$

5. What was the last math class that you took? When did you take it?
6. What other math classes do you need to take?
7. What is your major?
