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° . (10 points)

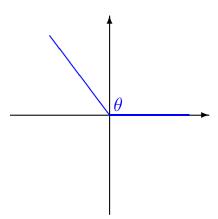
Some angles that are coterminal with 45° are 405° , 765° , -315° , and -675° . There are infinitely many possible solutions, but they are all a multiple of 360° away from 45° .

3. Convert 30° 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?