Continuing with Trig Ratios ©

We can determine EXACT trig ratios for an angle in standard position, as long as we are given one of the following:

- 1) A point on the terminal arm of an angle in standard position
- 2) An angle in standard position where the related acute angle (β) is a "special angle" (30°, 60°, 45°)
- 3) One of the trig ratios and the quadrant where the terminal arm of the angle in standard position lies

Let's see how each of these situations would work:

1. Point on Terminal Arm

Determine the primary trig ratios, in exact radical form, for the angle in standard position where the terminal arm passes through the point P(4,-8). Also find the measure of β and θ in approximate radian measure.

- 2. <u>Given an Angle that is a Related Angle to one of our "Special Angles"</u> Determine the reciprocal trig ratios, in exact radical form, for the angle in standard position where $\theta = \frac{-4\pi}{3}$.
- 3. Given a Trig Ratio and a Quadrant

Determine all six trig ratios for an angle in standard position where $\cot \theta = \frac{-11}{2}$ and the terminal arm lies in quadrant IV. Also find the measure of β and θ in approximate radian measure.