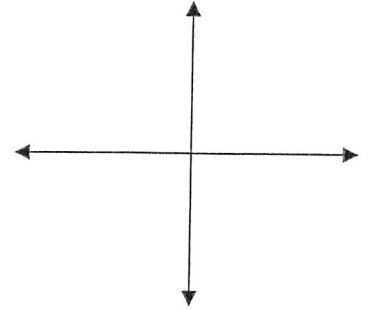


Free Response Practice #39
Calculator Permitted

Consider the two angles, θ and α , to answer the questions that follow. The angle $\theta = -\frac{10\pi}{3}$ and α is such that $\sin \alpha = -\frac{3}{7}$.

a. Express θ in terms of degree measure. Draw θ in standard degree position.



b. What is the measure of θ' , the reference angle of θ , expressed in radian measure.

c. The angle θ is co-terminal with which angle on the unit circle? Using the correct coordinates, find the exact values of $\tan \theta$ and $\csc \theta$. Show your work.

d. If $\cos \alpha < 0$, then which has a greater value— $\csc \theta$ or $\tan \alpha$. Show and explain the analysis that leads to your answer.

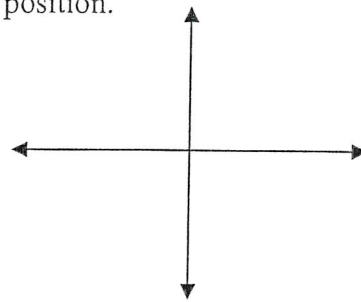
Free Response Practice #40
Calculator Permitted

Suppose an angle θ is such that $\sec \theta = -2.325$ and θ is such that $0 < \theta \leq 2\pi$.

a. If two angles have the same cosine value, what must be true about the reference angles of the two angles? From the unit circle, give two examples and explain your reasoning.

b. In which quadrant(s) could θ terminate? Explain your reasoning.

c. Using a calculator, solve the equation for θ and draw the angle in standard position.



d. Find the other possible angle for θ . Explain your method.