April 2, 2007
Answer Questions Section 9.2

Problem #9
Sine and cosine of the angle $19\pi/6 = 3\pi + \pi/6$
First thing is draw the angle
The terminal side is in the third quadrant and the reference angle is $\pi/6$
\[
\sin \frac{19\pi}{6} = -\sin \frac{\pi}{6} = -\frac{1}{2}
\]
\[
\cos \frac{19\pi}{6} = -\cos \frac{\pi}{6} = -\frac{\sqrt{3}}{2}
\]

Problem #31
I need the length of the hypotenuse =
\[
\sqrt{6^2 + 8^2} = \sqrt{36 + 64} = \sqrt{100} = 10
\]
\[
\sin \gamma = \frac{\text{opp}}{\text{hyp}} = \frac{8}{10} = \frac{4}{5}
\]
\[
\cos \gamma = \frac{\text{adj}}{\text{hyp}} = \frac{6}{10} = \frac{3}{5}
\]