7. A point rotates around a circle of radius 20 cm at 15 revolutions/sec. Include the units.
   (a) Find its angular speed $\omega$. Give the exact answer using $\pi$. 3 symbols + units, chk=3

   (b) Find its linear speed. Give the exact answer using $\pi$. 4 symbols + units, chk=6

8. Sketch $\pi/6$, $-\pi/6$ and $-5\pi/6$ in standard position, all on the same graph.

11. A point $(x, y)$ on the unit circle and on the terminal side of an angle $\theta$ is in the fourth quadrant.
   Find the six trigonometric functions if $x = \frac{1}{3}$. 4 answers have a radical, give exact answers, not decimals.
   $y^2 = 1 - x^2 = 1 - \frac{1}{9} = \frac{8}{9}$, $y = -\frac{\sqrt{8}}{3}$ or $-2\sqrt{2}/3$

   $$
   \begin{array}{c|c}
   \sin \theta = & \csc \theta = \\
   \cos \theta = & \sec \theta = \\
   \tan \theta = & \cot \theta = 
   \end{array}
   $$

12. A point $(x, y)$ on the unit circle and on the terminal side of an angle $\theta$ is in the first quadrant.
   Find the six trigonometric functions if $x = \frac{3}{5}$.
   Rational answers, give exact answers, not decimals. Use improper fractions, not mixed fractions. E.g. 3/2, not 1 1/2.
   $y^2 = 1 - x^2 = 1 - \frac{9}{25} = \frac{16}{25}$, $y = \frac{4}{5}$

   $$
   \begin{array}{c|c}
   \sin \theta = & \csc \theta = \\
   \cos \theta = & \sec \theta = \\
   \tan \theta = & \cot \theta = 
   \end{array}
   $$

13. Complete the table. Mark “+” where the functions are positive, “-” where they are negative.

   $$
   \begin{array}{c|c|c|c|c}
   \text{Quad I} & \text{Quad II} & \text{Quad III} & \text{Quad IV} \\
   \cos \theta, \sec \theta & + & & \\
   \sin \theta, \csc \theta & + & & \\
   \tan \theta, \cot \theta & + & & 
   \end{array}
   $$