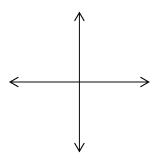
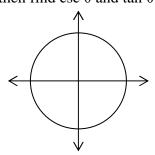
Spring 2012 Show all your work. Do NOT use a calculator on this quiz.

- 1. a. If $\tan \theta = \frac{3}{4}$ and $\cos \theta < 0$, angle θ is in what quadrant?
 - b. Draw a sketch to illustrate angle θ and its reference angle (and triangle), then find the remaining five trigonometric functions for θ .



4pts

2. Plot the following point $\left(-\frac{\sqrt{3}}{2}, \frac{1}{2}\right)$ on the unit circle that corresponds to angle θ , then find csc θ and tan θ .



8pts

3. Give the **exact value for each of the following trig functions**. Do NOT use a calculator. **Draw** and **label** the appropriate angle **and** reference angle (give its measure).

b.
$$\cot \frac{4\pi}{3} =$$
reference $\angle =$