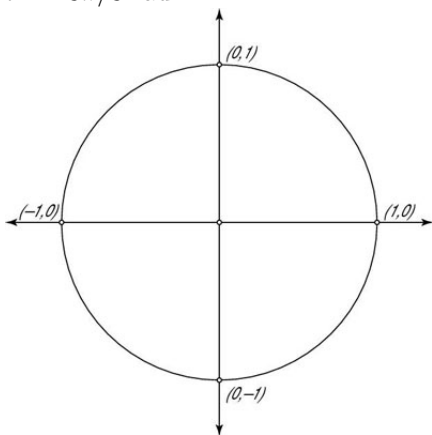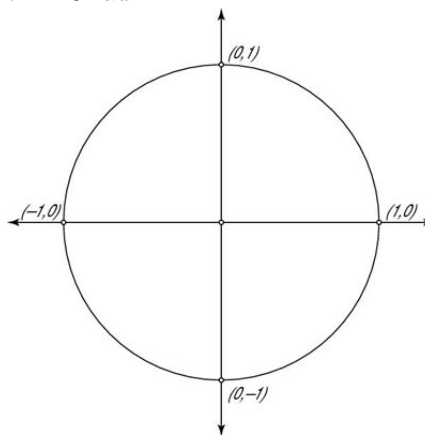1. Sketch the following angles in standard position:
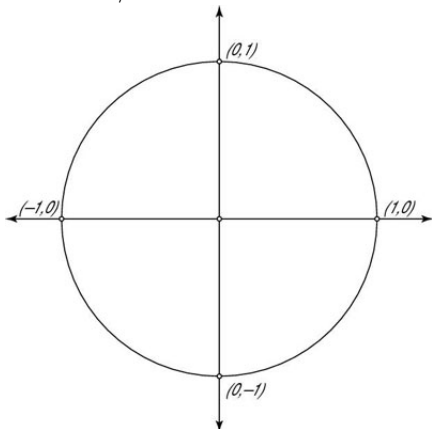
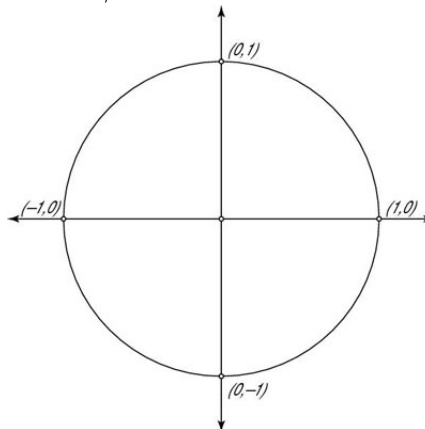   (a) $\theta = 13\pi/3$ rad

   (c) $\theta = 10$ rad

   (b) $\theta = -13\pi/3$ rad

   (d) $\theta = -10/2\pi$ rad

2. The *Pythagorean Identity* is true because the point $(\cos(\theta), \sin(\theta))$ always lies on the unit circle $x^2 + y^2 = 1$. Here's the Pythagorean Identity:

$$\cos^2(\theta) + \sin^2(\theta) = 1$$

   You should be able to write this down from memory.

   (a) Divide the Pythagorean Identity by $\cos^2(\theta)$ and simplify to get a new trigonometric identity.

   (b) Divide the Pythagorean Identity by $\sin^2(\theta)$ and simplify to get a new trigonometric identity.

3. Given the value of one trigonometric, find the value of all the others. (Hint: Use the Pythagorean Identity and the variants you found in Question 2.)

(a) $\sin(\theta) =$ $\csc(\theta) =$

    $\cos(\theta) =$ $\sec(\theta) =$

    $\tan(\theta) =$ $\cot(\theta) =$

(b) $\sin(\theta) =$ $\csc(\theta) =$

    $\cos(\theta) =$ $\sec(\theta) =$

    $\tan(\theta) =$ $\cot(\theta) =$

(c) $\sin(\theta) =$ $\csc(\theta) =$

    $\cos(\theta) =$ $\sec(\theta) =$

    $\tan(\theta) =$ $\cot(\theta) =$

4. Challenge Question: