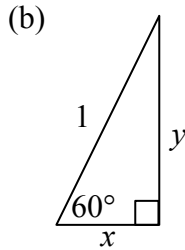
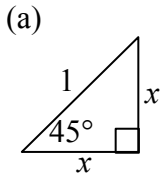


Aim: How do we use the unit circle to find trig function values?

I. Do Now:

1. Find the value of x and y .



2. Find the reference angle for each angle:

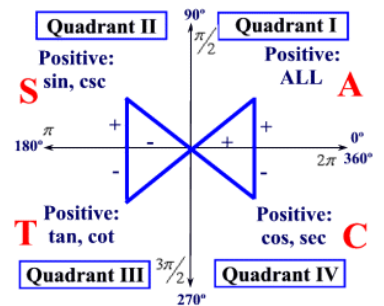
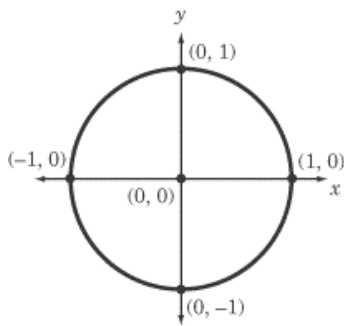
(a) 155°

(b) 300°

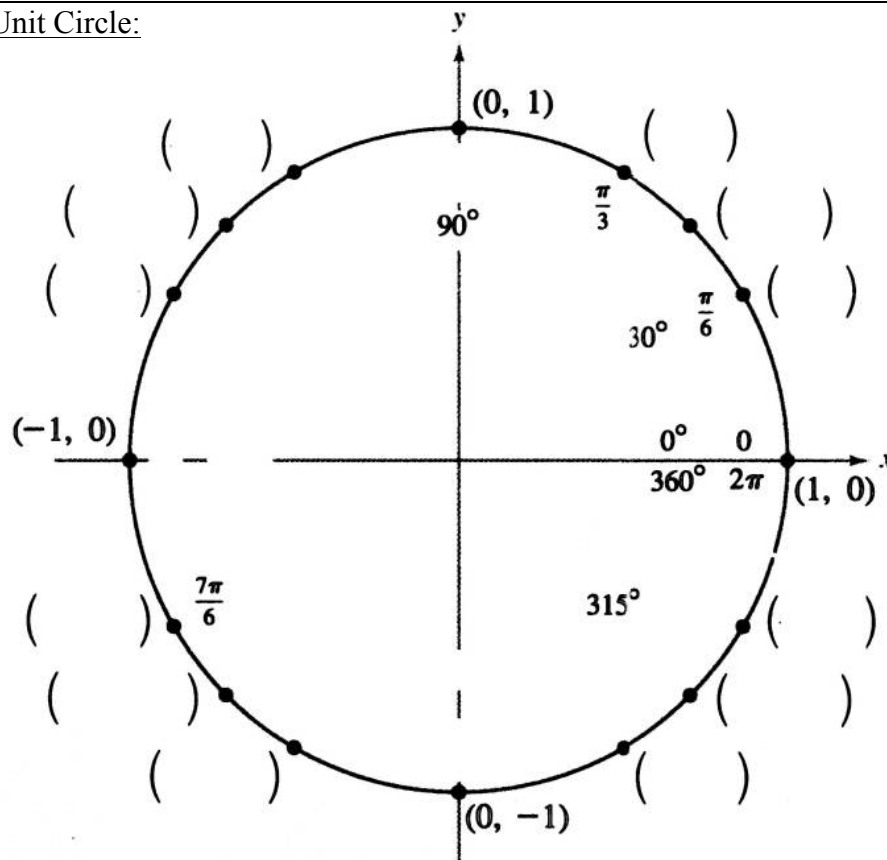
(c) $1,100^\circ$

(d) $-\frac{31\pi}{6}$

II. Representing Sine and Cosine as Coordinates:



III. Complete the Unit Circle:



IV. Applications:

3. Find the exact value of each without using a calculator:

(a) $\sin 120^\circ$

(b) $\cos 210^\circ$

(c) $\cos 315^\circ$

(d) $\tan 135^\circ$

4. Express the given function as a function of a positive acute angle and, if possible, find the exact function value:

(a) $\tan 225^\circ$

(b) $\cos 100^\circ$

(c) $\cos 405^\circ$

(d) $\csc 650^\circ$

(e) $\tan(-120^\circ)$

(f) $\sec 400^\circ$

5. Find the exact value of the given expression:

(a) $(\sec \frac{2\pi}{3})(\sin \frac{2\pi}{3})$

(b) $\cot \frac{\pi}{4} + \csc \frac{3\pi}{4}$

(c) $\tan \frac{\pi}{3} + \cot \frac{5\pi}{6}$

HW20
 Read pages 322 – 325.
 p. 318: 15, 30, 49, 53
 p. 328: 1, 3, 13
 p. 339: 59, 60
 p. 350: 38, 39, 44, 45, 49, 51