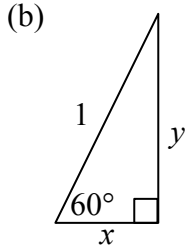
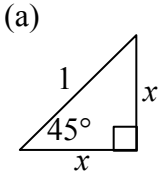


Aim: How do we use the unit circle to find trig function values?

I. Do Now:

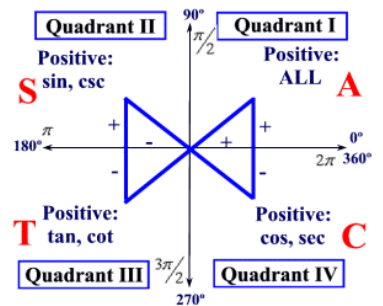
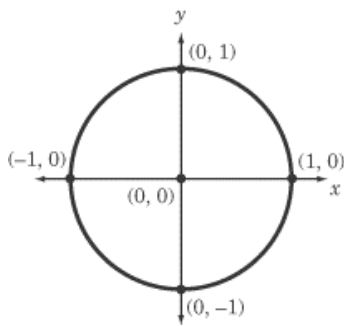
1. Find the value of x and y .



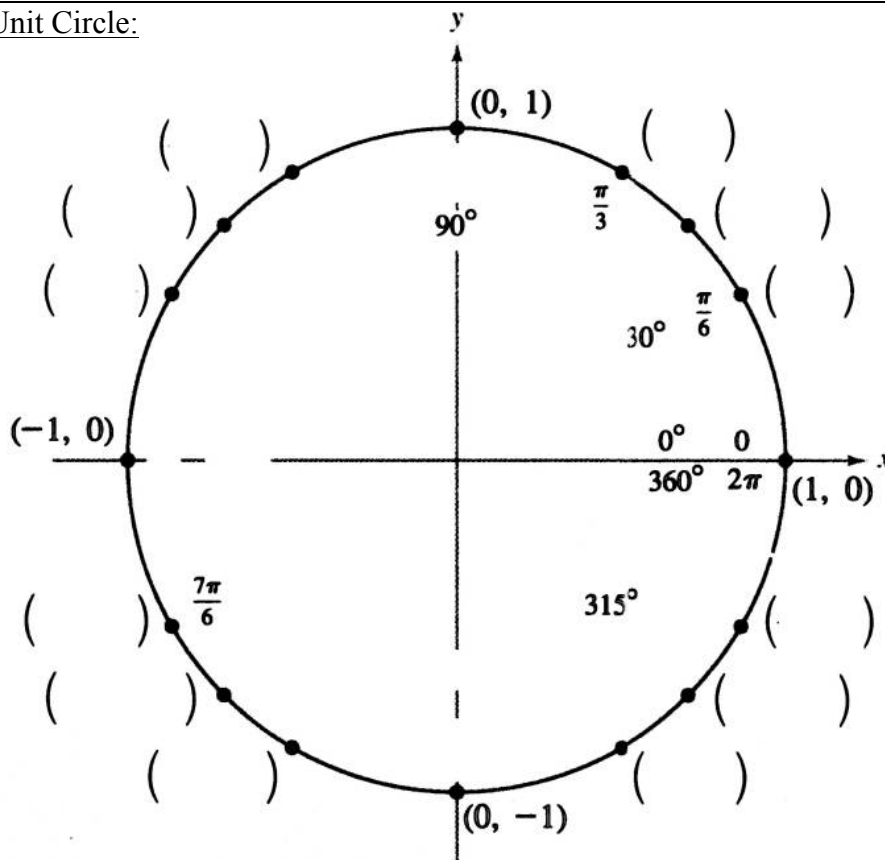
2. Find the reference angle for each angle:

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

HW18
 Read pages 265 – 267.
 p. 261: 25b, 28b, 41b, 42b, 49ab, 53ab
 p. 270: 9, 12, 19
 p. 282: 74, 76
 p. 290: 52, 57, 58, 62, 67, 68, 69, 71, 73, 75