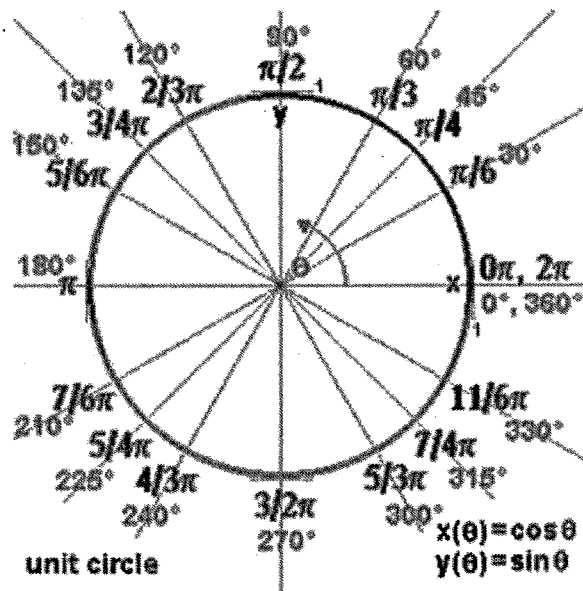
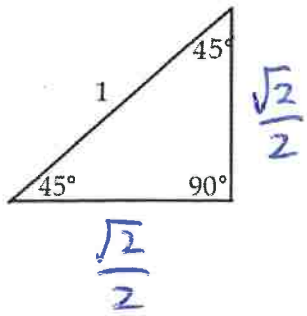


Degrees and Radians Together

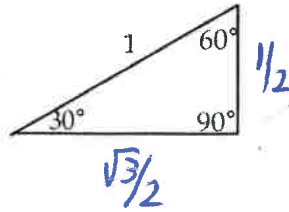




$$\sin 45^\circ = \frac{\sqrt{2}}{2}$$

$$\cos 45^\circ = \frac{\sqrt{2}}{2}$$

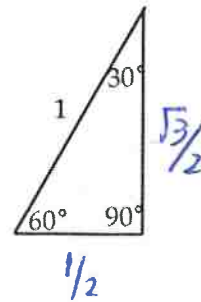
$$\tan 45^\circ = 1$$



$$\sin 30^\circ = \frac{1}{2}$$

$$\cos 30^\circ = \frac{\sqrt{3}}{2}$$

$$\tan 30^\circ = \frac{1}{\sqrt{3}} \rightarrow \frac{\sqrt{3}}{3}$$

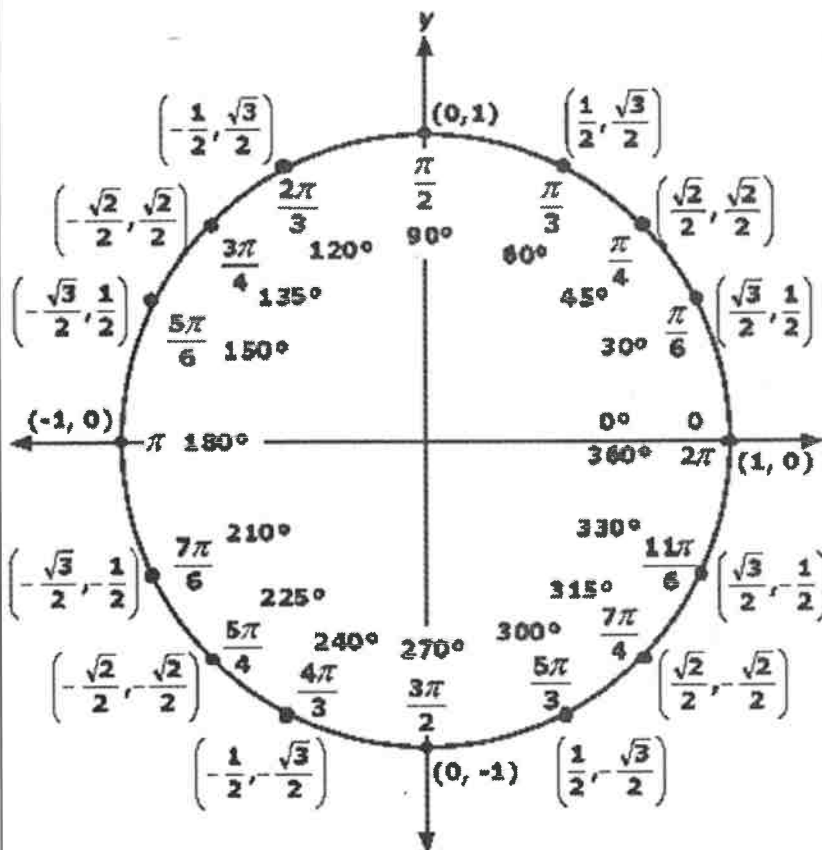


$$\sin 60^\circ = \frac{\sqrt{3}}{2}$$

$$\cos 60^\circ = \frac{1}{2}$$

$$\tan 60^\circ = \frac{\sqrt{3}}{1} = \sqrt{3}$$

Unit Circle



coordinates = (x,y)

$$\cos \theta = x$$

$$\sin \theta = y$$

$$\tan \theta = y/x$$

$$\sec \theta = 1/x$$

$$\csc \theta = 1/y$$

$$\cot \theta = x/y$$

Reciprocals

cosine

secant

sine

cosecant

tangent

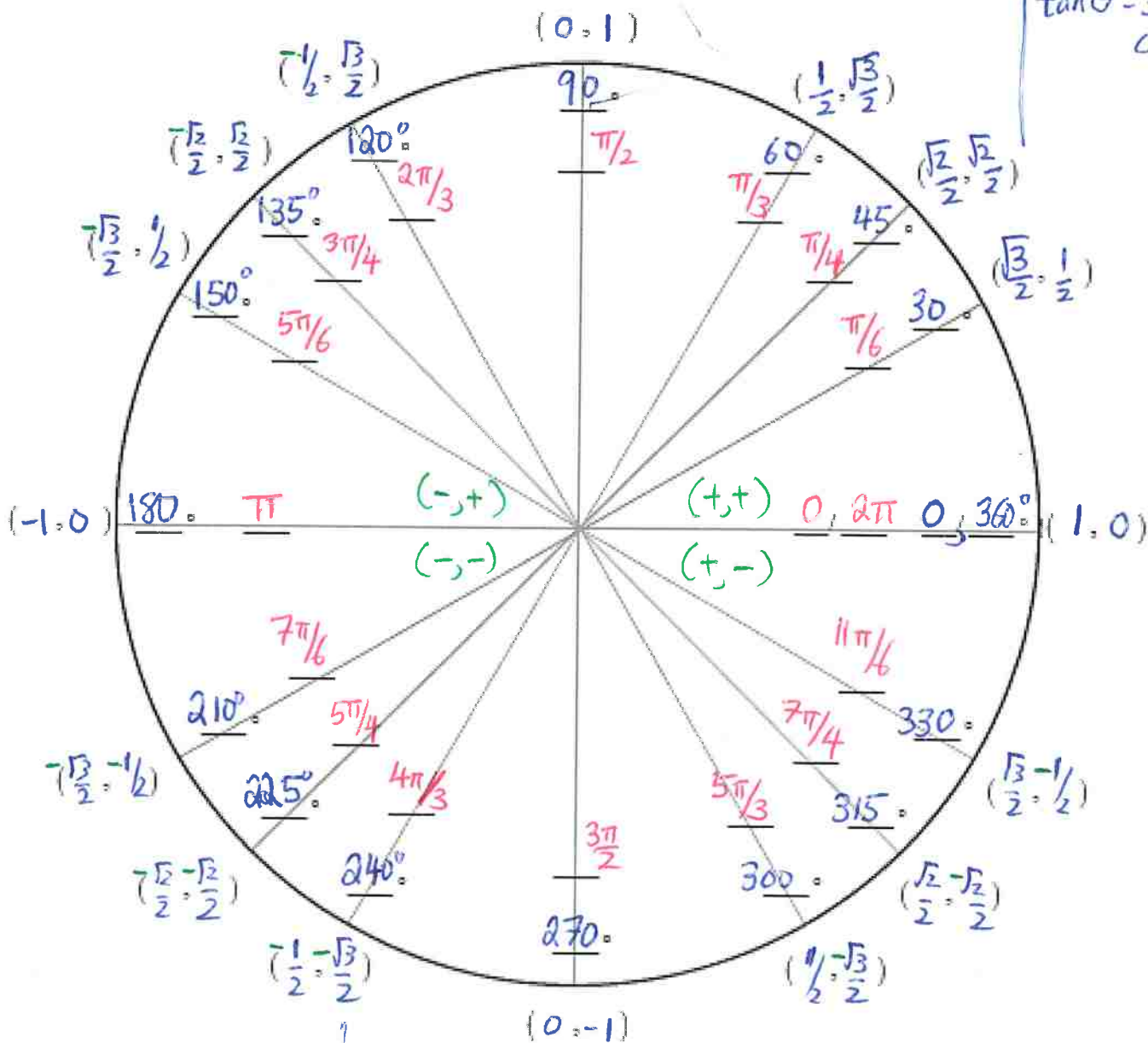
cotangent

1.12 HW: Try filling out the unit circle

(Radius = 1)

$(\overset{x}{\cos \theta}, \overset{y}{\sin \theta})$

$$\tan \theta = \frac{\sin \theta}{\cos \theta}$$



$$\cos \theta = x$$

$$\sec \theta = \frac{1}{x} \rightarrow \frac{1}{\cos \theta}$$

$$\sin \theta = y$$

$$\csc \theta = \frac{1}{y} \rightarrow \frac{1}{\sin \theta}$$

$$\tan \theta = \frac{y}{x} \rightarrow \frac{\sin \theta}{\cos \theta}$$

$$\cot \theta = \frac{x}{y} \rightarrow \frac{\cos \theta}{\sin \theta}$$