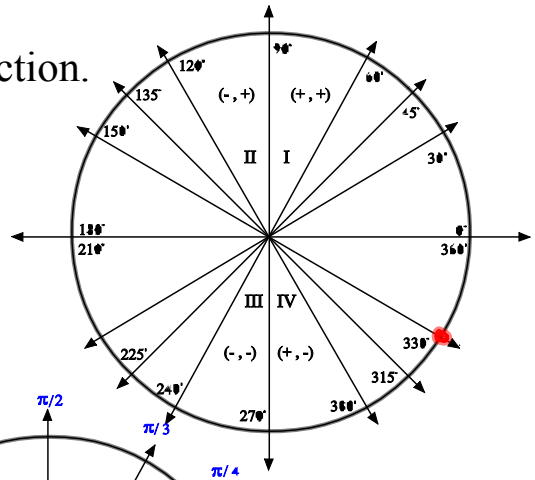
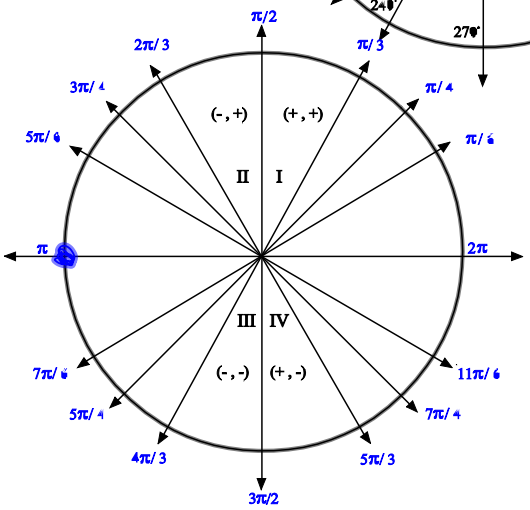
Warm-Up:

Find the exact measure of each function.

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

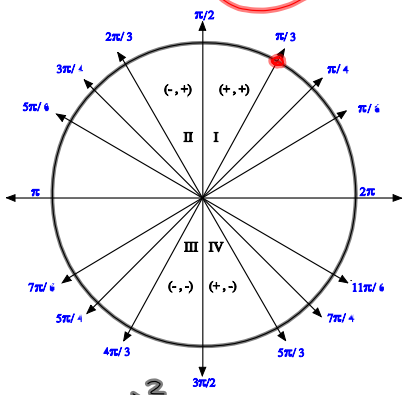
2) $\cos 7\pi = -1$





30, 16

16) $\sin\left(\frac{14\pi}{6}\right) = \sin\frac{7\pi}{3} = \frac{\sqrt{3}}{2}$



30) $(\sin 30)^2 + (\cos 30)^2$

$\left(\frac{1}{2}\right)^2 + \left(\frac{\sqrt{3}}{2}\right)^2$

$\frac{1}{4} + \frac{3}{4} = 1$

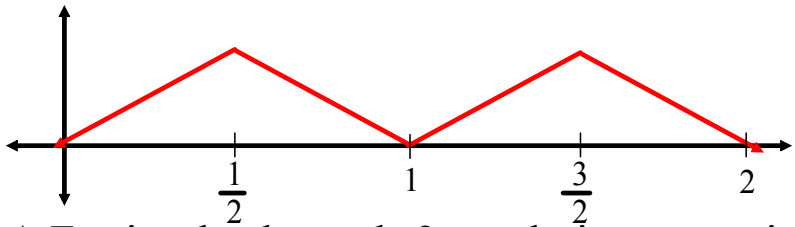
Section 13-6: Circular Functions (Cont'd)

Recall that $y = \sin\Theta$ and $x = \cos\Theta$. These are called circular functions.

Whenever a graph oscillates (repeats), it is periodic. The period is the distance on the x-axis between repetitions.

Examples:

1) Find the period of the given graph.



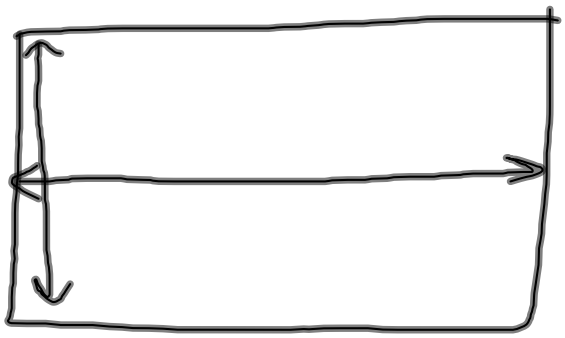
1 unit

2) A Ferris wheel travels 3 revolutions per minute. Identify the period for this function representing time and ~~vertical height~~ position.

$\frac{1}{3}$ min

20 secs

$y = \sin x$ $y = \cos x$



Homework: pg. 803 #19-24 all, 28, 40, 41

Ch. 13 Test Friday April 15/Monday April 18