(Covers 13.1 → 13.6, 13.8, 14.3 In Book)

Things You Need to Know for Midterm

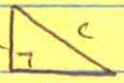
(and, no, you can't use this sheet on test)

Amplitude = $\frac{\max - \min}{2}$ Eqn of Axis: $y = \frac{\max + \min}{2}$

Arc Length $s = r\theta$ (θ in radians)

Degrees → Radians $\times \frac{\pi}{180}$

Radians → Degrees $\times \frac{180}{\pi}$

Pythagorean Thm 

$a^2 + b^2 = c^2$

b = # of cycles from $0 - 2\pi$: sin + cos

$0 - \pi$: tan

$y = a \sin b\theta$

x	y
0	0
$\frac{1}{4}P$	a
$\frac{1}{2}P$	0
$\frac{3}{4}P$	-a
P	0

$y = a \cos b\theta$

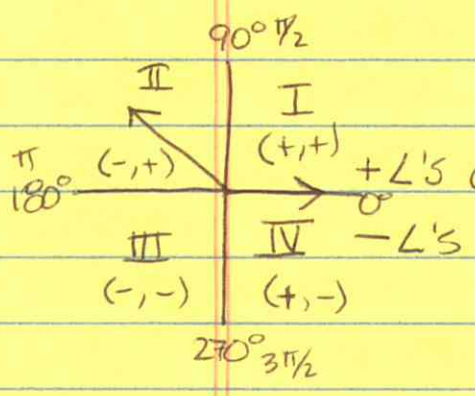
x	y
0	a
$\frac{1}{4}P$	0
$\frac{1}{2}P$	-a
$\frac{3}{4}P$	0
P	a

$y = a \tan b\theta$

x	y
0	0
$\frac{1}{2}P$	undefined (asymptote)
P	0
$\frac{3}{2}P$	undefined (asymptote)
2P	0

$b = 2\pi/P$ $P = 2\pi/b$

$b = \pi/P$ $P = \pi/b$

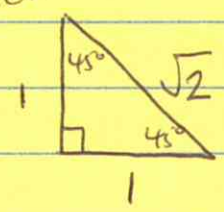


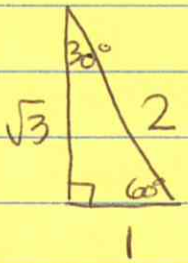
coterminal ∠'s: +/- 360° until ∠ is between 0°-360°

+∠'s open counter clockwise

-∠'s open clockwise

sin +	all +
tan +	cos +





SOHCAHTOA

$\sin\theta = \frac{O}{H}$ $\csc\theta = \frac{H}{O}$

$\cos\theta = \frac{A}{H}$ $\sec\theta = \frac{H}{A}$

$\tan\theta = \frac{O}{A}$ $\cot\theta = \frac{A}{O}$

} can't leave √'s in denominator

multiply by $\frac{\sqrt{2}}{\sqrt{2}}$ or $\frac{\sqrt{3}}{\sqrt{3}}$