

Chapter 4: Reference Sheet

- 4.1 • Finding Coterminal Angles
- In Degrees: ± 360
 - In Radians: $\pm 2\pi$

- 4.1 • Conversions
- Degrees \rightarrow Radians $\frac{\pi}{180^\circ}$
 - Radians \rightarrow Degrees $\frac{180^\circ}{\pi}$

- 4.1 • Finding (if possible) Complement and Supplement of Angles
- In Degrees:

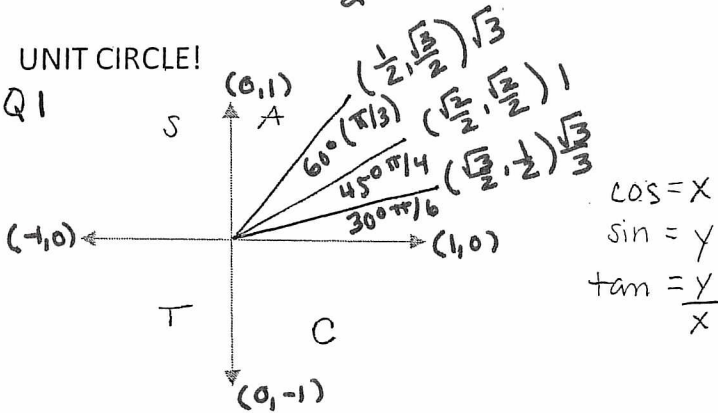
Complement	Supplement
$90^\circ -$	$180^\circ -$
 - In Radians:

$\frac{\pi}{2} -$	$\pi -$
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* what is meant by "if possible"?

4.2 • UNIT CIRCLE!

4.3 • Q1

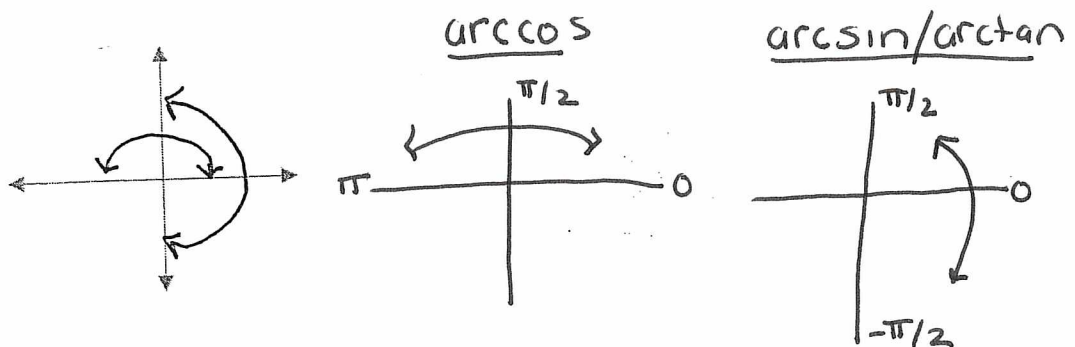


- 4.4 • Reference Triangles always drawn to X - axis

- 4.5 • Graphing Sin/Cos : Period = $\frac{2\pi}{B}$; Phase Shift = $\frac{C}{B}$

$y = A \sin(B\theta \pm C) \pm D$ * Know how A, B, C, D effect the graph

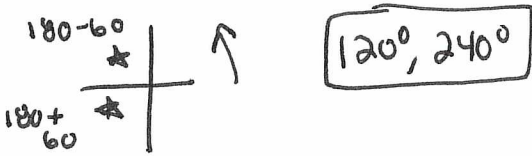
- 4.7 • Inverse Trig.



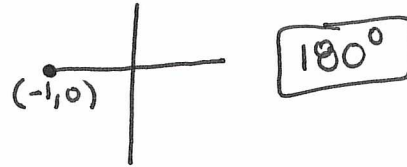
Chapter 4 Review - Trig Equations

Solve each equation for $0 \leq \theta < 360$.

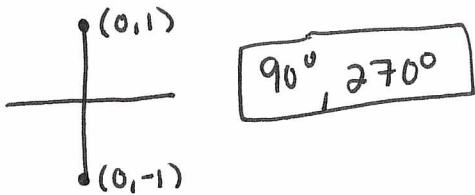
1) $-\frac{1}{2} = \cos \theta$ (60°)



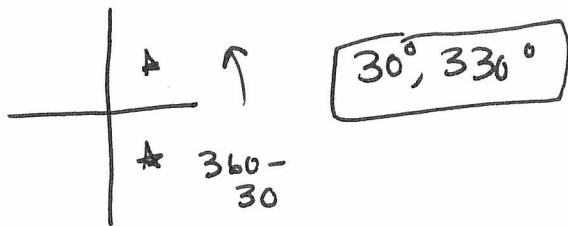
2) $\cos \theta = -1$



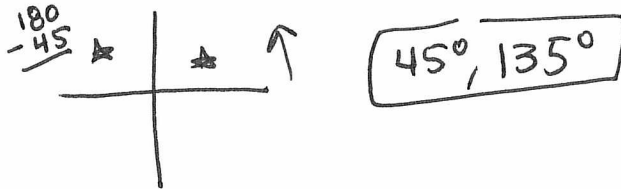
3) $\cos \theta = 0$



4) $\frac{\sqrt{3}}{2} = \cos \theta$ (30°)



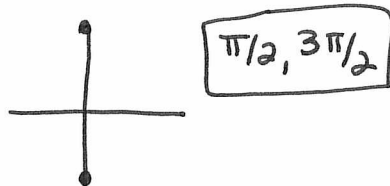
5) $\sin \theta = \frac{\sqrt{2}}{2}$ (45°)



Solve each equation for $0 \leq \theta < 2\pi$.

6) $\frac{3\cos \theta}{3} = \frac{0}{3}$

$\cos \theta = 0$

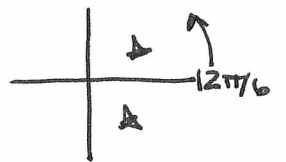


7) $1 + \cos \theta = \frac{2 + \sqrt{3}}{2}$

$\cos \theta = \frac{2 + \sqrt{3}}{2} - \frac{1}{1} = \frac{2 + \sqrt{3} - 2}{2} = \frac{\sqrt{3}}{2}$

$\cos \theta = \frac{\sqrt{3}}{2}$

$\pi/6, 11\pi/6$



8) $\frac{-3 + \sin \theta}{+3} = \frac{-3}{+3}$

$\sin \theta = 0$

$0, \pi$



9) $\frac{0}{-4} = \frac{-4\sin \theta}{-4}$

$\sin \theta = 0$

$0, \pi$



10) $\frac{4 + \tan \theta}{-4} = \frac{5}{-4}$

$\tan \theta = 1$

