

3rd Quarter Starter #1

- Evaluate the six trig functions
P(5, -2)
- Sign of $\frac{8\pi}{5}$ a) cos b) sin c) tan
- Find $\cos \theta$ and $\cot \theta$
 $\sin \theta = \frac{2}{5}$ and $\tan \theta < 0$

$\cos \theta = -\frac{\sqrt{21}}{5}$
 $\cot \theta = -\frac{\sqrt{21}}{2}$

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(5, -2)
x y
adj 5
opp 2
hyp $\sqrt{21}$

$\sin \theta = \frac{2}{5}$ $\csc \theta = \frac{5}{2}$
 $\cos \theta = \frac{\sqrt{21}}{5}$ $\sec \theta = \frac{5}{\sqrt{21}}$
 $\tan \theta = \frac{2}{\sqrt{21}}$ $\cot \theta = \frac{\sqrt{21}}{2}$

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$\frac{8\pi}{5}$ 1.6
a) + b) - c) -

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Homework #'s

46) $\sin \theta$ $\cos \theta$
 $\cot \theta = \frac{3}{-7}$ $\sec \theta < 0$ x -

$(-3)^2 + (-7)^2 = 58$
 $9 + 49 = 58$
 $2 \sqrt{29}$

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Reference Angle: The distance the angle is from the axis.

If an angle is the same distance from the x-axis as the reference angle. It will have the same value for each trig ratio.

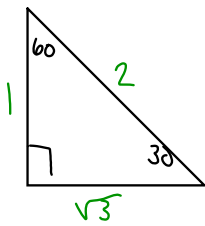
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What is the reference angle for the following:

- 120° 60°
- 225° 45°
- 330° 30°
- $\frac{\pi}{3}$ 60°
- $\frac{5\pi}{3}$ 60° $\frac{\pi}{3}$
- $\frac{7\pi}{6}$ 30°

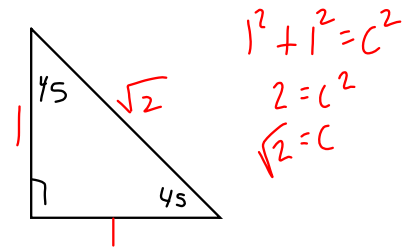
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Special Triangles: 30-60-90



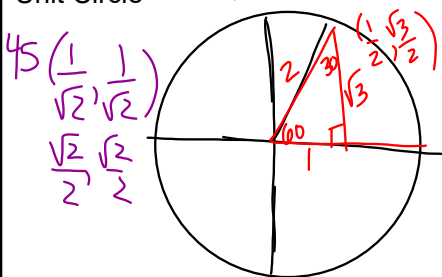
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Special Triangles: 45-45-90

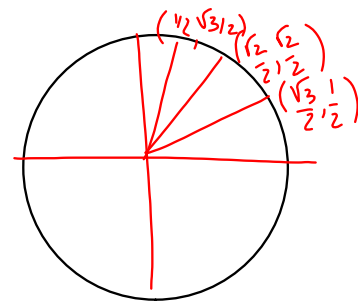


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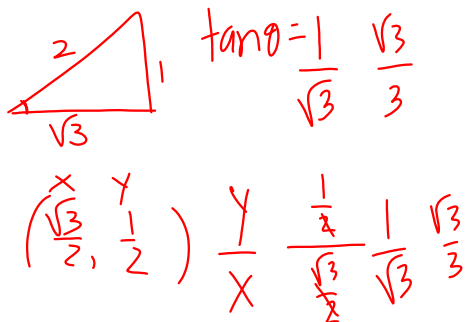
Unit Circle



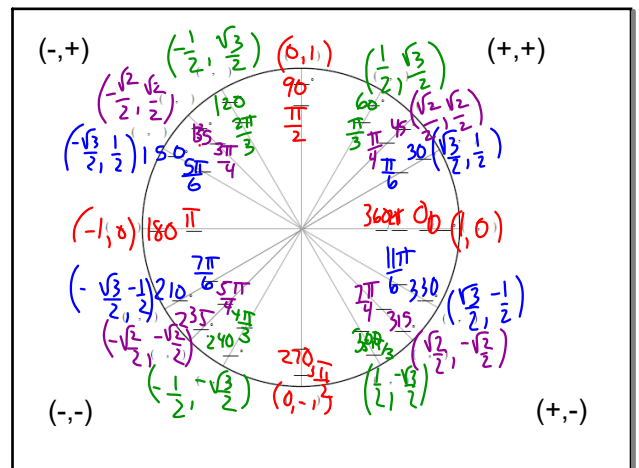
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$\cos 120^\circ$ reference angle $-\frac{1}{2}$

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$\tan 300^\circ$

reference	Unit circle
	$(\frac{1}{2}, \frac{\sqrt{3}}{2})$ $\tan \frac{y}{x}$
$\frac{\sqrt{3}}{1}$	$-\frac{\sqrt{3}}{2} \div \frac{1}{2}$
$-\sqrt{3}$	$-\frac{\sqrt{3}}{2} \cdot \frac{2}{1} = -\sqrt{3}$

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$\sin -210^\circ$

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$\sec 225^\circ$

$\frac{H}{A}$

$\frac{\sqrt{2}}{1}$ $(\sqrt{2})$

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$\tan \frac{2\pi}{3}$ $\frac{2}{3} \cdot 180$ 120

ref angle 60°

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W.S. 6.2 Unit Circle Day 2

1-24

49-60

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