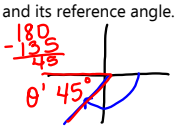
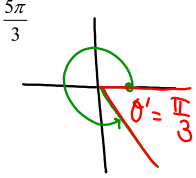
WARM UP

Sketch the angle and its reference angle. Find the measurement of the reference angle.

$a)\theta = -135^0$



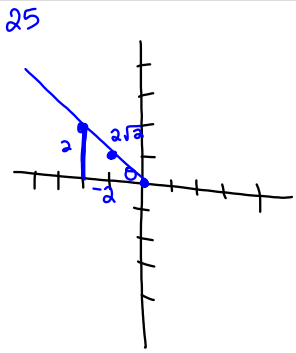
$b)\theta = \frac{5\pi}{3}$



$2\pi - \frac{5\pi}{3}$

$\frac{6\pi}{3} - \frac{5\pi}{3} = \frac{\pi}{3}$

Sep 18-8:57 AM



$y = -x$ QII

$\sin\theta = \frac{2}{2\sqrt{2}} = \frac{1}{\sqrt{2}} = \frac{\sqrt{2}}{2}$

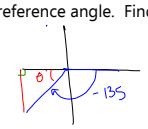
$\cos\theta = \frac{-2}{2\sqrt{2}} = \frac{-1}{\sqrt{2}} = -\frac{\sqrt{2}}{2}$

Sep 3-10:56 AM

WARM UP

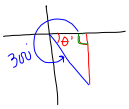
Sketch the angle and its reference angle. Find the measurement of the reference angle.

$a)\theta = -135^0$



$\theta = 180 - 135 = 45$

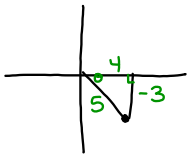
$b)\theta = \frac{5\pi}{3} \cdot \frac{180}{\pi} = 300$



$\theta = 360 - 300 = 60$ or $\pi/3$

Sep 18-8:57 AM

Find cos(t) given that sin(t)=-3/5 and the angle is in Quadrant IV.



$\cos(t) = \frac{4}{5}$

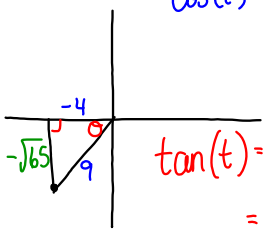
p. 280 for Fundamental Trig Identities

p. 295: #65 (HW)

Sep 18-9:05 AM

Find tan(t) given that sec(t)=-9/4 and the angle is in Quadrant III.

$\cos(t) = \frac{-4}{9}$



$a^2 + (-4)^2 = 9^2$

$a^2 + 16 = 81$

$\sqrt{a^2} = \sqrt{65}$

$a = -\sqrt{65}$

$\tan(t) = \frac{-\sqrt{65}}{-4}$

$= \frac{\sqrt{65}}{4}$

p. 280 for Fundamental Trig Identities

p. 295: #69 (HW)

Sep 18-9:05 AM

Review

Use your calculator to find the approximated value rounded to 4 decimal places.

$\sin 245^0 = -.9063$ Mode - degree

$\csc(-\frac{8\pi}{9})$

$\frac{1}{\sin(\frac{-8\pi}{9})} = -2.9238$ Mode - Radian

Sep 18-9:14 AM

Wrapping up our 2-day journey of Section 4.4 (trig of any angle)...

Old problem:

$\sin\frac{\pi}{4} = \frac{\sqrt{2}}{2}$

Given: Angle

Quest: Location

Sep 19-3:17 PM

Question:

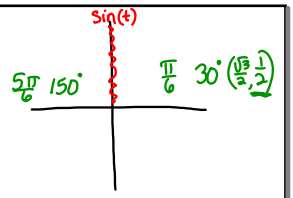
How would we go the other way?

Sep 19-3:22 PM

New problem:

$\sin\theta = \frac{1}{2}$

$\frac{\pi}{6}, \frac{5\pi}{6}$



Given: Location

Quest: Angle

2 Answers

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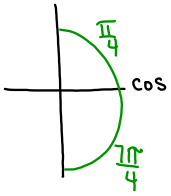
Example | p. 295 #90

Find two solutions of the equation. Give answers in degrees and radians.

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



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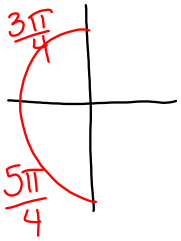
Example | p. 295 #90

Find two solutions of the equation. Give answers in degrees and radians.

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



Sep 19-3:31 PM

HOMEWORK

...circles, angles, triangles! Tomorrow is a Workday!!!!

Tomorrow--Circle Quiz #4 (12 minutes; reciprocal functions will be included)

4.4b: 53, 57, 61, 65-75 (odd), 77, 81, 85, 89, 91, 93, ~~109~~ 103

Sep 18-9:17 AM

Aug 31-7:28 PM