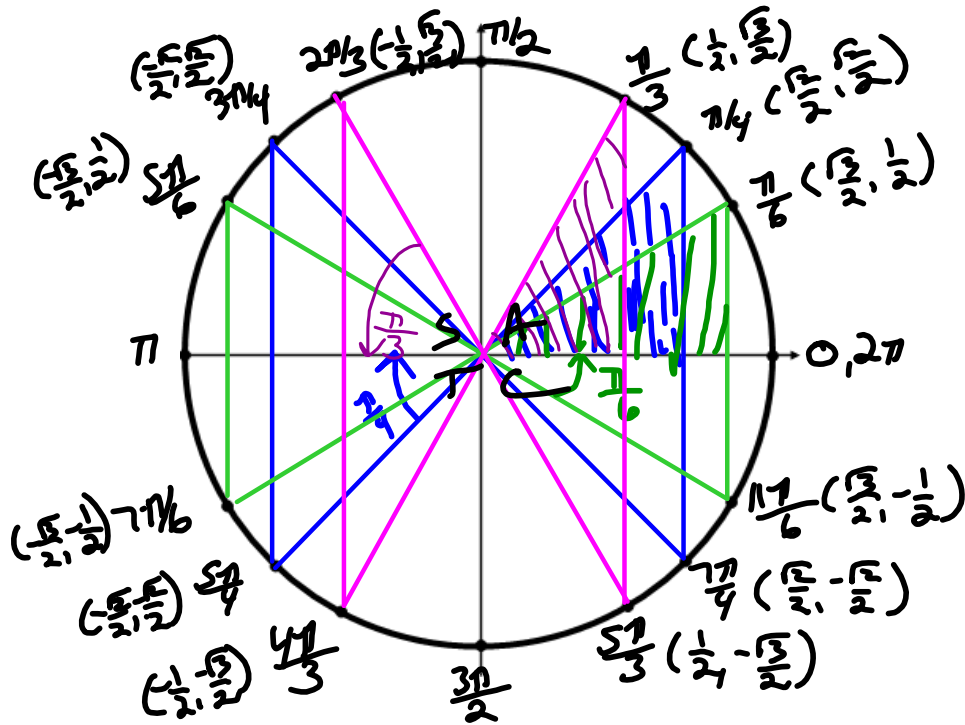


Take out Day 5 notes & complete the $y = \cos x$ table and graph.
This large circle you have may help.

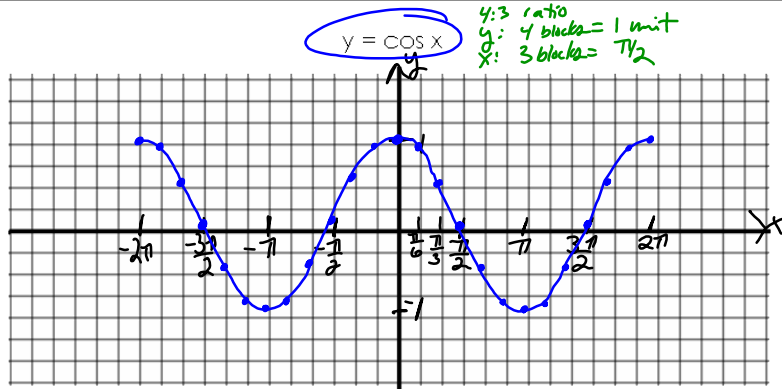


Dec 3-8:37 AM

$y = \cos x$

		I +		II -		III -		IV +						
		(1,0)		(0,1)		(-1,0)		(0,-1)		(1,0)				
X	radians	0	$\frac{\pi}{6}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$	$\frac{5\pi}{6}$	π	$\frac{7\pi}{6}$	$\frac{4\pi}{3}$	$\frac{3\pi}{2}$	$\frac{5\pi}{3}$	$\frac{11\pi}{6}$	2π
y	exact value	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	0	$-\frac{1}{2}$	$-\frac{\sqrt{3}}{2}$	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	1
	decimal	1	.9	.5	0	-.5	-.9	-1	-.9	-.5	0	.5	.9	1

X	radians	-2π	$-\frac{11\pi}{6}$	$-\frac{5\pi}{3}$	$-\frac{3\pi}{2}$	$-\frac{4\pi}{3}$	$-\frac{7\pi}{6}$	$-\pi$	$-\frac{5\pi}{6}$	$-\frac{2\pi}{3}$	$-\frac{\pi}{2}$	$-\frac{\pi}{3}$	$-\frac{\pi}{6}$	0
y	exact value	1	$\frac{\sqrt{3}}{2}$	$\frac{1}{2}$	0	$-\frac{1}{2}$	$-\frac{\sqrt{3}}{2}$	-1	$-\frac{\sqrt{3}}{2}$	$-\frac{1}{2}$	0	$\frac{1}{2}$	$\frac{\sqrt{3}}{2}$	1
	decimal	1	.9	.5	0	-.5	-.9	-1	-.9	-.5	0	.5	.9	1



Dec 3-9:21 AM

Any questions on this or review for quiz?

P. 501 #7, 8, 10, 13, 14

7. 0 8. $\frac{1}{2}$ 10. -1 13. $-\frac{\sqrt{3}}{2}$ 14. -1

P. 483

9) $9\pi/4, -7\pi/4$

19) complement $5\pi/12$ supplement $11\pi/12$

20) complement $\pi/3$ supplement $5\pi/6$

Dec 4-2:26 PM

QUIZ

Retakes on Quiz 1 must be done by EOD Wednesday.

HW: WS 6.2 due tomorrow

Jan 11-9:04 AM

Review for quiz: Trig

I. Find the supplement and complement for each:

a) $\frac{+2\pi}{5}$

C: $\frac{\pi}{10}$
S: $\frac{3\pi}{5}$

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

b) $\frac{3\pi}{8}$

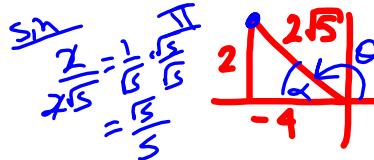
C: $\frac{\pi}{8}$
S: $\frac{5\pi}{8}$

Dec 11-5:38 PM

2. If the terminal side of an angle in standard position contains the point $(-4, 2)$ find the value of all six trig functions:

$$\sin t = \frac{\sqrt{5}}{5}$$
$$\cos t = -\frac{2\sqrt{5}}{5}$$
$$\tan t = -\frac{1}{2}$$

$$\csc t = \sqrt{5}$$
$$\sec t = -\frac{\sqrt{5}}{2}$$
$$\cot t = -2$$

2b) Find a positive & negative angle coterminal to $\frac{9\pi}{16}$

+: $\frac{9\pi}{16} + \frac{32\pi}{16} = \frac{41\pi}{16}$

-: $\frac{9\pi}{16} - \frac{32\pi}{16} = -\frac{23\pi}{16}$

$$\pm 2\pi \cdot \frac{16}{16} = \pm \frac{32\pi}{16}$$

Dec 11-5:39 PM

3. Complete the table:

Trig function	0	$\frac{\pi}{6}$	$\frac{\pi}{4}$	$\frac{\pi}{3}$	$\frac{\pi}{2}$	$\frac{2\pi}{3}$
Sin	0	$\frac{1}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{\sqrt{3}}{2}$	1	$\frac{\sqrt{3}}{2}$
Cos	1	$\frac{\sqrt{3}}{2}$	$\frac{\sqrt{2}}{2}$	$\frac{1}{2}$	0	$-\frac{1}{2}$
Tan	0	$\frac{\sqrt{3}}{3}$	1	$\sqrt{3}$	und	$-\sqrt{3}$
Csc	und	2	$\sqrt{2}$	$\frac{2\sqrt{3}}{3}$	1	$\frac{2\sqrt{3}}{3}$
Sec	1	$\frac{2\sqrt{3}}{3}$	$\sqrt{2}$	2	und	-2
Cot	und	$\sqrt{3}$	1	$\frac{\sqrt{3}}{3}$	0	$-\frac{\sqrt{3}}{3}$

Pyth Triplet

3-4-5
 5-12-13
 8-15-17
 7-24-25

Dec 11-5:39 PM

4. Evaluate: $\cos \frac{2\pi}{3} \sin \frac{11\pi}{6} - \sec \frac{5\pi}{6} \tan \frac{2\pi}{3}$

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

$$= \frac{1}{4} - 2 = \frac{1}{4} - \frac{8}{4} = -\frac{7}{4}$$

Dec 11-5:40 PM

5. Evaluate each

a) $\sin \frac{3\pi}{2} = -1$

b) $\sec \frac{7\pi}{6} = -\frac{2\sqrt{3}}{3}$

c) $\csc \frac{5\pi}{3} = -\frac{2\sqrt{3}}{3}$

d) $\cot \frac{-2\pi}{3} = \frac{\sqrt{3}}{3}$

e) $\cot 2\pi = \text{und}$

Dec 11-5:39 PM

6. Find the value of the remaining six trig functions if $\sec x = -2$ and $\cot x > 0$

$\sin t = -\frac{\sqrt{3}}{2}$

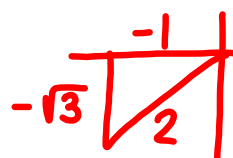
$\csc t = -\frac{2\sqrt{3}}{3}$

$\cos t = -\frac{1}{2}$

$\sec t = -2$

$\tan t = \sqrt{3}$

$\cot t = \frac{\sqrt{3}}{3}$



Dec 11-5:40 PM

7. Find the value of the remaining six trig functions if $\cos x = \frac{+8}{17}$ and $\sin x < 0$

$$\sin x = -\frac{15}{17}$$

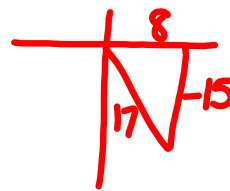
$$\csc x = -\frac{17}{15}$$

$$\cos x = \frac{8}{17}$$

$$\sec x = \frac{17}{8}$$

$$\tan x = -\frac{15}{8}$$

$$\cot x = -\frac{8}{15}$$



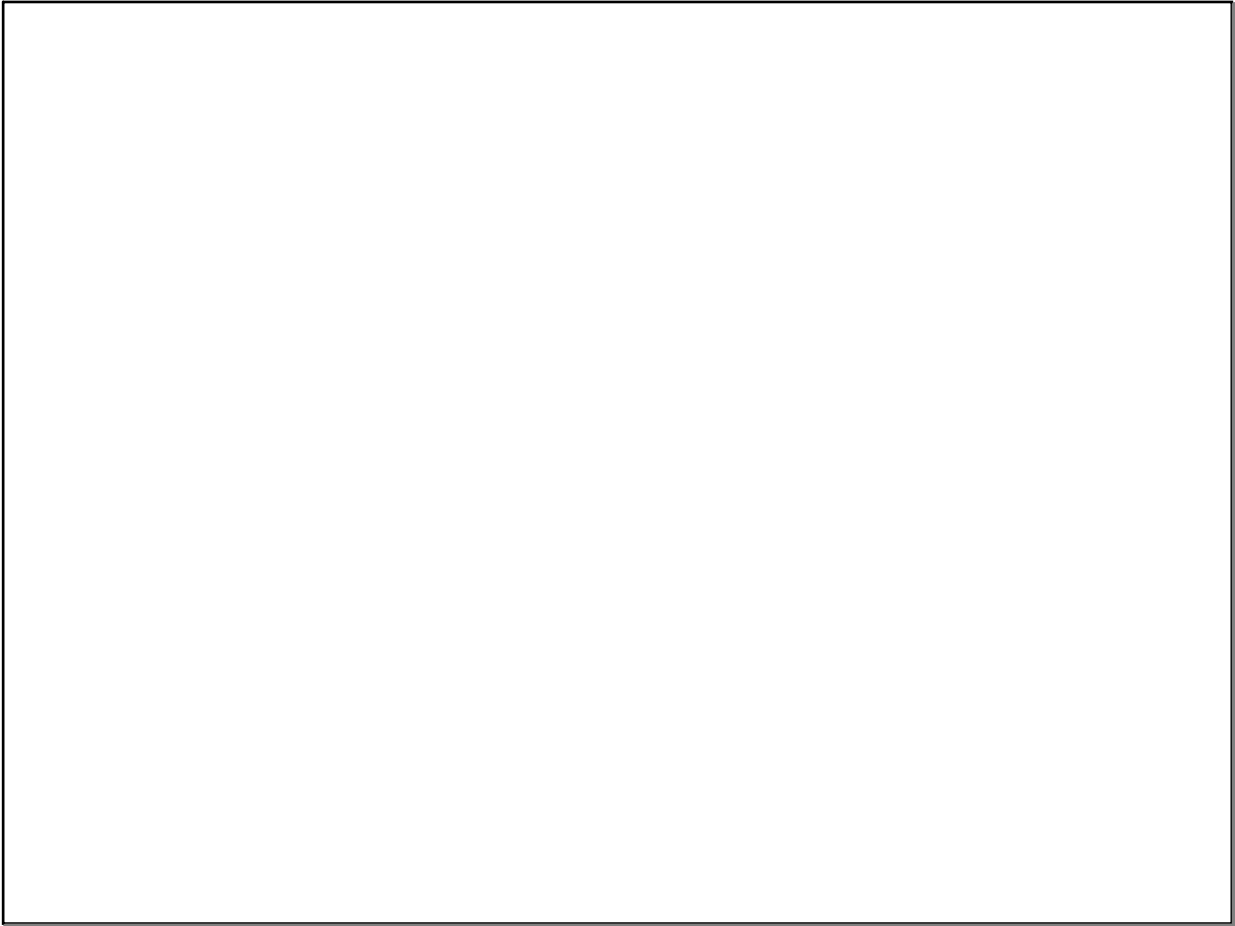
Dec 11-5:40 PM

$$\begin{aligned} 8. a. \frac{\sec x}{\csc x} &= \frac{\frac{1}{\cos x}}{\frac{1}{\sin x}} \cdot \frac{\cos x \sin x}{\cos x \sin x} \\ &= \frac{\sin x}{\cos x} \\ &= \tan x \end{aligned}$$

$\frac{1}{\cos x} \cdot \frac{\sin x}{1} =$

$$b. (\sin x)(\cot x) = \frac{\sin x}{1} \cdot \frac{\cos x}{\sin x} = \cos x$$

Dec 23-8:36 AM



Jan 8-9:53 PM