

Note March 25 - 29 - ALG II  
 Standard for the week (**bold** → emphasized;  $\equiv$  → important on regents)

Trigonometric Functions	
Extend the domain of trigonometric functions using the unit circle	
<u>F.TFA.1</u>	Understand radian measure of an angle as the length of the arc on the unit circle subtended by the angle.
<u>F.TFA.2</u>	<b>Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle (includes the reciprocal trigonometric functions).</b>
<u>F.TFB.5</u>	Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.
<u>F.TFC.8</u>	Prove the Pythagorean identity $\sin^2(\theta) + \cos^2(\theta) = 1$ and use it to find $\sin(\theta)$ , $\cos(\theta)$ , or $\tan(\theta)$ given $\sin(\theta)$ , $\cos(\theta)$ , or $\tan(\theta)$ and the quadrant of the angle.

Trigonometric Functions

Extend the domain of trigonometric functions using the unit circle

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F.TFA.2 **Explain how the unit circle in the coordinate plane enables the extension of trigonometric functions to all real numbers, interpreted as radian measures of angles traversed counterclockwise around the unit circle (includes the reciprocal trigonometric functions).**

F.TFB.5 Choose trigonometric functions to model periodic phenomena with specified amplitude, frequency, and midline.

F.TFC.8 Prove the Pythagorean identity  $\sin^2(\theta) + \cos^2(\theta) = 1$  and use it to find  $\sin(\theta)$ ,  $\cos(\theta)$ , or  $\tan(\theta)$  given  $\sin(\theta)$ ,  $\cos(\theta)$ , or  $\tan(\theta)$  and the quadrant of the angle.

Students are grouped by test scores Randomization used to increase equity

Monday: more graphing, collect POM QUIZ?

Error 76

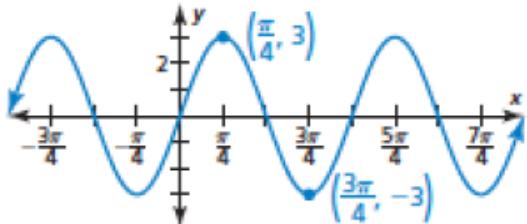
28.  $g(x) = \sin(x+\pi/4)$  What are the amplitude and period of this graph? Choose the best and worst answer,

A) amp = 1, per =  $6\pi/5$       B) Amplitude: 1 period:  $2\pi$       C) a=4, p=4+pi/4      D) amp:1, pd: $8\pi/X+\pi$

33.  $g(x) = \sin 0.5(x+2\pi)+3$  What are the amplitude and period of this graph? Choose the best and worst answer,

- a) Amplitude=0.5 graph is shifted 3 units up and period is horizontally stretched
- b) amplitude=1, period= $2\pi/.5$ , shifted to the left  $2\pi$  and up 3 units
- c) amplitude: 1 period:  $4\pi$
- d) vertical compression of 2, horizontal shift of  $2\pi$  left and 3 units up, amp=1 per=  $4\pi$

Error 77



13. A.  $Y = 3\sin(2x)$     B.  $y=3\cos(3\pi x)+3$     C.  $y=3\sin(5/8x)$

Hand out scantrons [trig answers](#)

1.  $\sin(90^\circ) =$

2.  $\cot(60^\circ) =$

3.  $\csc(30^\circ) =$

4.  $\cos(\frac{\pi}{6}) =$

5.  $\tan(\frac{\pi}{3}) =$

6.  $\sec(\frac{\pi}{4}) =$

[trig mult choice](#)

TUESDAY: QUIZ?

Review day one

[summary trig](#)

[in class review](#)

[graphing review](#)

Notes on sheet

Closing activity: When do you use pyth theorem or SOH CAH TOA

Wednesday: SAT/PSAT

Thursday: More review

Friday: TEST