Warm Up

How does the graph of $g(x) = 0.5\cos(2x)$ differ from the graph of its parent function, $f(x) = \cos(x)$, over the interval $-\pi \leq x \leq \pi$?

A The amplitude is smaller, and the period is shorter.

B The amplitude is smaller, and the period is longer.

C The amplitude is larger, and the period is shorter.

D The amplitude is larger, and the period is longer.

unit 5

$p = 2\pi$

$p = \frac{2\pi}{2} = \pi$

Take out HW!!!!!

Which equation is equivalent to $3\log x + \log 2 = \log 3x - \log 2$?

unit 2

A $\log x^3 + 2 = \log(3x - 2)$

B $\log(3x + 2) = \log(3x - 2)$

C $\log 6x = \log\left(\frac{3x}{2}\right)$

D $\log(2x^3) = \log\left(\frac{3x}{2}\right)$

$\log x^3 + \log 2 = \log \frac{3x}{2}$

$\log 2x^3 = \log \frac{3x}{2}$

The graph of $y = ax^2$ is shifted up 3 units and right 5 units. Which equation represents the resulting graph?

unit 1

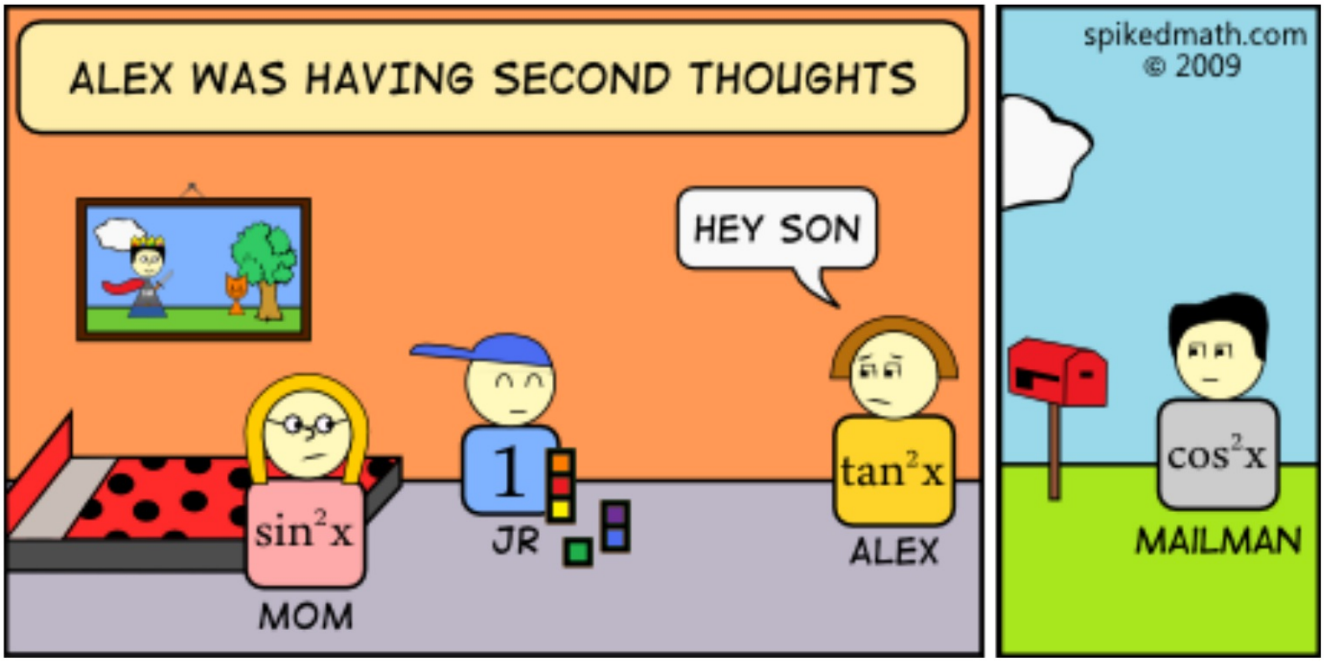
A $y = a(x - 5)^2 + 3$

B $y = a(x + 5)^2 + 3$

C $y = a(x - 3)^2 + 5$

D $y = a(x + 3)^2 + 5$

Do you get the joke?



What about this one?

I'm

$\sqrt{1+\tan^2 C}$

and I know it.

$\sqrt{\sec^2 C}$

$\sec(c)$

Scavenger Hunt

- Partners or Trios!
- Find the answer to each question
- Spell the secret message

What do you call a man after he has been at the beach all summer?

A TANGENT [redacted]

Make a new page in your journal!!

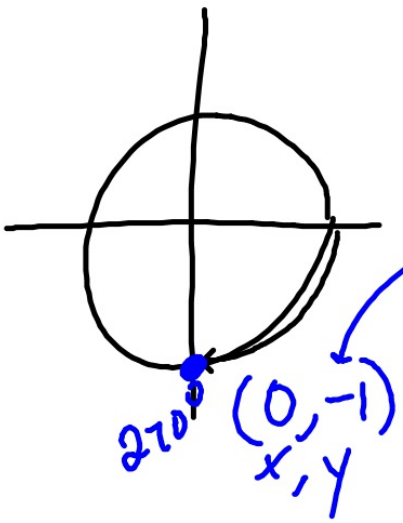
6.4: Solving Trig Equations

Example 1: $\sin\theta + 1 = 0$ ("theta")

$-1 \quad -1$

* solve for θ

$\sin\theta = -1$



$\sin^{-1}(-1) = \theta$

$-90^\circ = \theta$

$270^\circ = \theta$ or $\frac{3\pi}{2} = \theta$

$\times \frac{\pi}{180}$

Example 2:

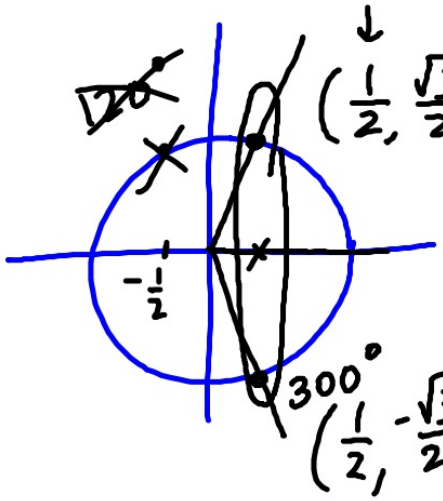
$$2\cos\theta - 1 = 0$$

Solve for "ALL" the angles

$$2\cos\theta = 1$$

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

$\{60°, 300°\}$



$$\cos^{-1}\left(\frac{1}{2}\right) = \theta$$

$60° = \theta$ and $300°$

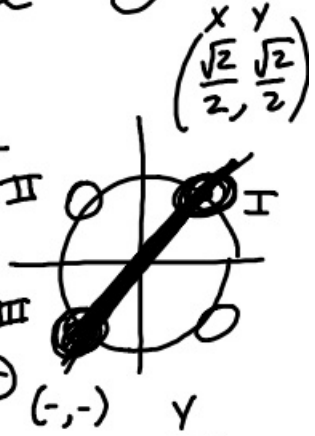
Example 3: $2\tan\theta - 2 = 0$

$\tan = \frac{Y}{X}$

$2\tan\theta = 2$

$\tan\theta = 1$

$\tan^{-1}(1) = \theta$



$45° = \theta$

$225° = \theta$

Unit 6 Summary

- Complete your unit 6 concept map
- Key thing: memorize those ID's!