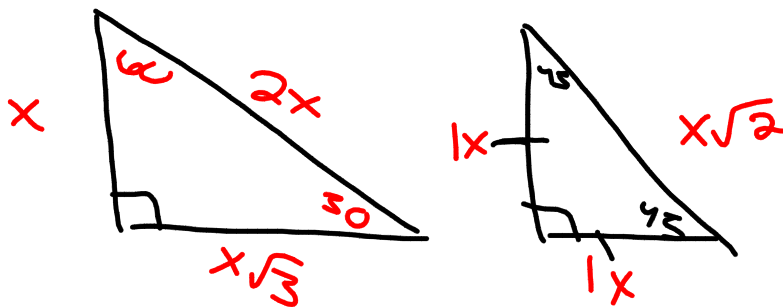5/23 - 7th Block Final 5/24- 6th/8th Block Final
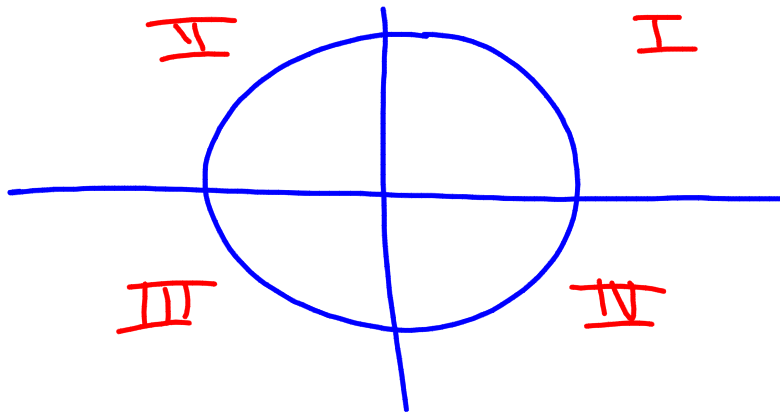<u>Warm Up</u>

*Create and label the two special right
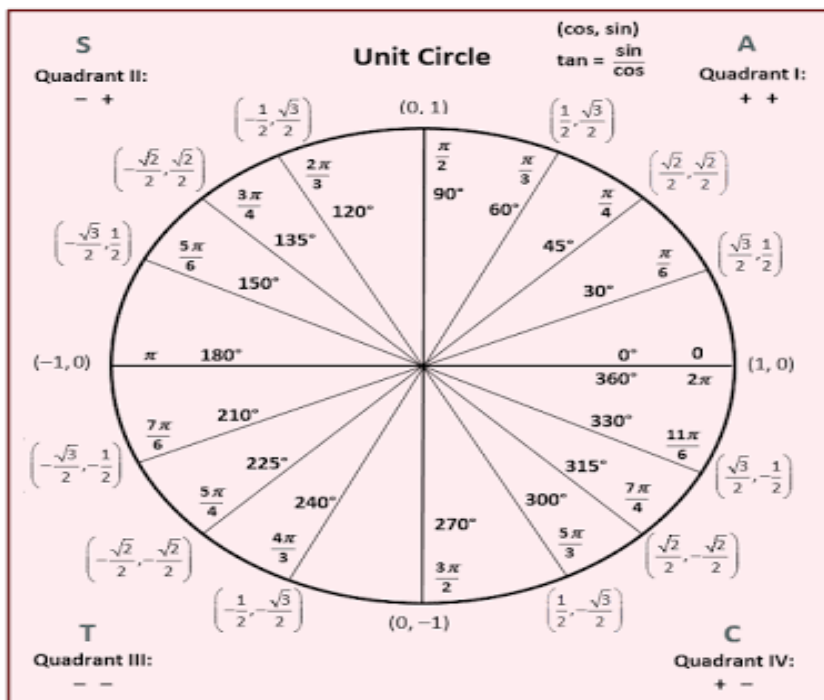triangles.

*Go over Rational Functions Test!

-If you haven't taken it, please sit outside.

*Lets see how much trig you remember!
-Can you recreate the unit circle?

What to expect on the Final?

Two parts

-Non calculator (free response)

*Matching graphs with equations

*Graphing (including Domain, Range, Asymptote)

*Evaluate logs and trig functions

*Simplify Rational Functions, Rational Exponents

*Solving Rationals, logs, exponentials, trig functions

-Calculator (multiple choice)

*Multiple Choice

*Inverses, solving, simplify

*Composition Functions

*Compound Interest Word Problems

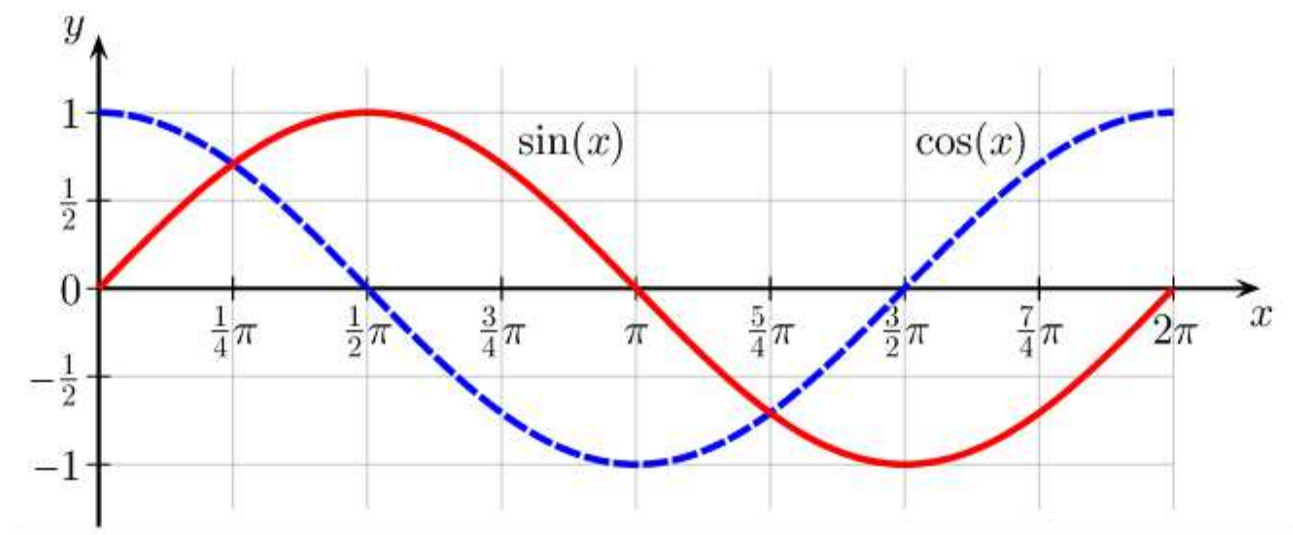***Please bring in textbooks on Friday or next Tuesday.

Trigonometry

Special Right Triangles

Unit Circle

Evaluating

Solving

Graphing

KEY CONCEPT

*For Your Notebook*

Translations of Sine and Cosine Graphs

To graph $y = a \sin b(x - h) + k$ or $y = a \cos b(x - h) + k$ where $a > 0$ and $b > 0$, follow these steps:

(handwritten annotations: Left/Right, Amp, $p = \frac{2\pi}{b}$, up/down)

STEP 1　**Identify** the amplitude a, the period $\frac{2\pi}{b}$, the horizontal shift h, and the vertical shift k of the graph.

STEP 2　**Draw** the horizontal line $y = k$, called the *midline* of the graph.

STEP 3　**Find** the five key points by translating the key points of $y = a \sin bx$ or $y = a \cos bx$ horizontally h units and vertically k units.

STEP 4　**Draw** the graph through the five translated key points.

1. $y = 2\cos(x - \pi/2) + 3$ up 3 $y = a\cos b(x-h) + k$

Right $\frac{\pi}{2}$

Amplitude- 2

Period- $\frac{2\pi}{b} = \frac{2\pi}{1} = 2\pi \div 4$ count by $\frac{\pi}{2}$

Vertical Shift- up 3

Horizontal Shift- Right $\frac{\pi}{2}$
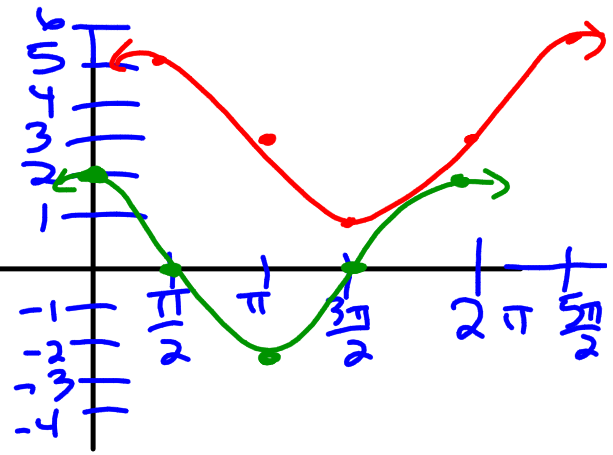
~~Maximum-~~

~~Minimum-~~

~~x-intercepts-~~

$\csc\theta = \frac{4}{1}$

1) Given $\sin\theta = \frac{1}{4}$, find the other five trig functions.

$\sec\theta = \frac{4\sqrt{15}}{15}$

$\cos\theta = \frac{\sqrt{15}}{4}$

$\tan\theta = \frac{1}{\sqrt{15}}$

$\frac{\sqrt{15}}{15}$

$\cot\theta = \frac{\sqrt{15}}{1}$

$\sqrt{15}$
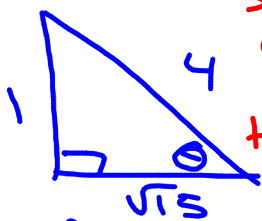
$4^2 = 1^2 + x^2$

$16 = 1 + x^2$

2) Evaluate the following trig functions.

a) $\cos 210° = -\frac{\sqrt{3}}{2}$

b) $\sin\frac{5\pi}{4} = -\frac{\sqrt{2}}{2}$

c) $\tan\frac{5\pi}{6} = \frac{\sin 30}{\cos 30} = \frac{\frac{1}{2} \cdot \frac{2}{\sqrt{3}}}{}$

$\frac{\frac{1}{\sqrt{3}}}{\sqrt{3}} = -\frac{\sqrt{3}}{3}$

3) Solve the following equation.

2sinxcosx=sinx

Solving Trigonometric Functions

Solve the following for $0 \leq x < 2\pi$.

A) $\sin(x) + 2 = 3$.

$-2 \quad -2$

$\sin x = 1$

$90° / \frac{\pi}{2}$

B) $\tan^2(x) - 3 = 0$

$\sqrt{\tan^2 x} = \sqrt{3}$

$\tan x = \pm\sqrt{3}$

$60, 120, 240, 300$

C) $2\cos^2(x) - \sqrt{3}\cos(x) = 0$

$\cos x \left(2\cos x - \sqrt{3} \right) = 0$

$\cos x = 0$

$90, 270$

$2\cos x - \sqrt{3} = 0$

$\frac{2\cos x}{2} = \frac{\sqrt{3}}{2}$

$\cos x = \frac{\sqrt{3}}{2}$

$30 / 330$

S	A
T	C

Trig Kahoots/Quizizzs

https://quizizz.com/admin/quiz/5c3e20a16383af001b37d9cf/unit-circle-evaluating-trig

https://quizizz.com/admin/quiz/5b07075839ecff001ad8ff0d/evaluating-trigonometric-functions

*Let's work on the reviews.

-Find the trig questions.

Rational Exponents and Radical Functions

Graphs

Exponent Rules

Inverses

Compositions

Radical Exponents Worksheet

https://quizizz.com/admin/quiz/579a16dfff0524336f48d1b6/412-adding-and-subtracting-radicals

https://create.kahoot.it/#quiz/098278be-54b9-4742-9c52-50eb11674b32

https://create.kahoot.it/#quiz/0dd462de-6ce3-400a-bc56-11214959ccd9

<u>Day 2- Final Review</u>
<u>Cheat Sheet</u>

*Let's get out our folders with our tests. Write down old problems or formulas.

*20 minutes

<u>Day 2</u>

<u>Exponentials and Logs</u>

Graph a) $y = 2\left(1/3\right)^{x-1} + 4$ b) $y = \log_3(x-1) + 2$

Solving

<u>Exponentials and Logs</u>

Condensing/Expanding

a) $\log \dfrac{2x^3y^5z}{3}$ b) $3(\log_2 x + 3\log_2 y - 4\log_2 z)$

<u>Exponentials and Logs</u>
Inverses

a) $y=\ln(x+4)-1$ b) $y=e^{x+3}-6$

c) $y=\log_2(x+1)-4$ d) $y=4^{x-3}+1$

Stations

https://quizizz.com/admin/quiz/570cd81701a18feb4643394a/logs

Rational Functions

Graphs

Multiply/Divide

Solving

Rational Functions

https://create.kahoot.it/#quiz/9ae640e6-688e-4111-ac18-9d7f25a0a27f

https://create.kahoot.it/#quiz/ed3790db-2df7-4bc7-945c-935d3c584f9f

HW: Final Review Packets

*Extra Credit & Final Review due on

the day of the final!!!!