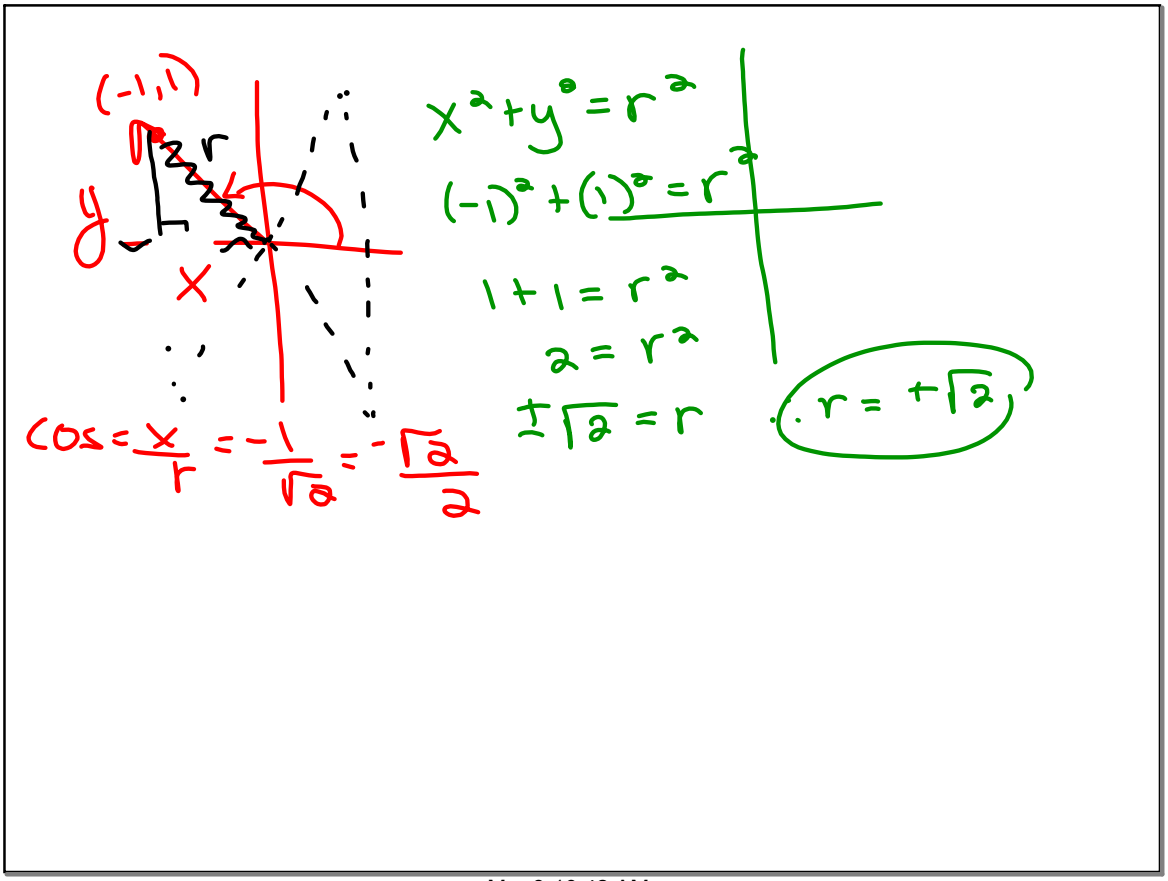
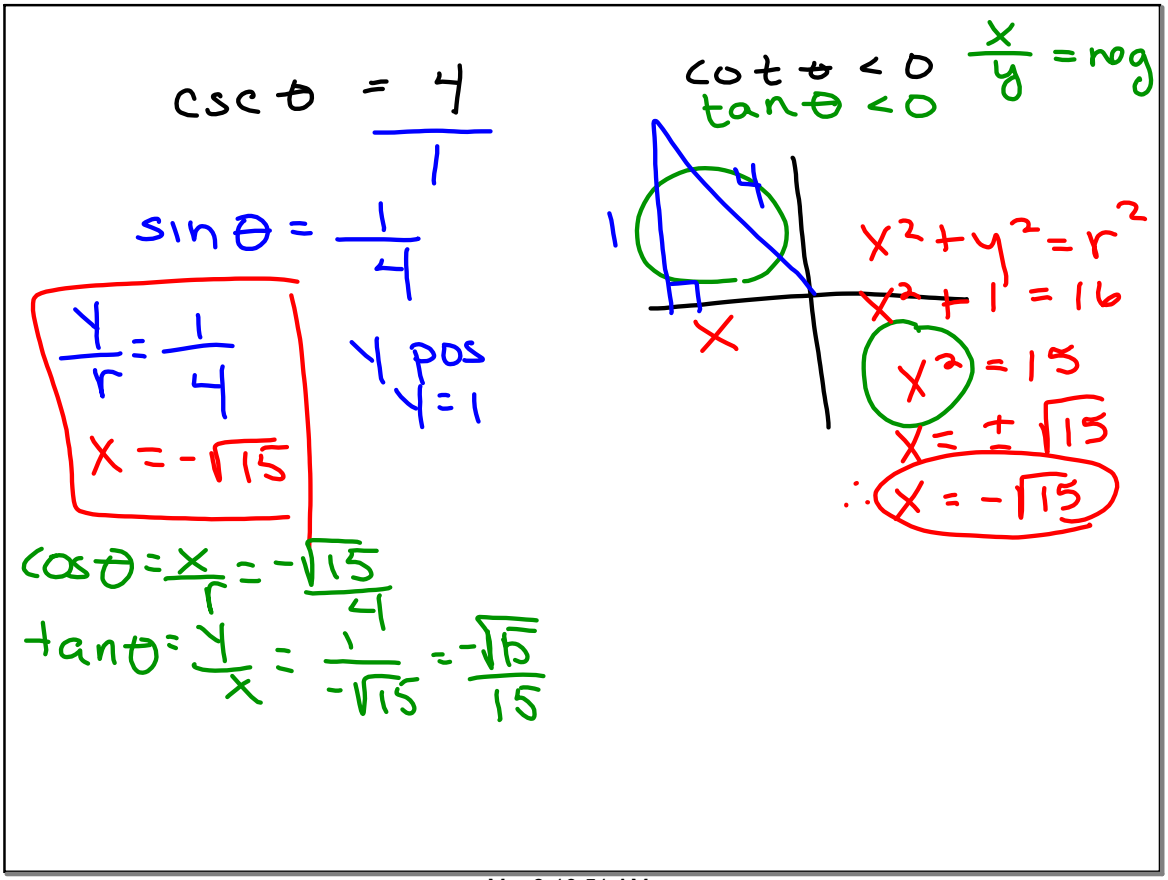
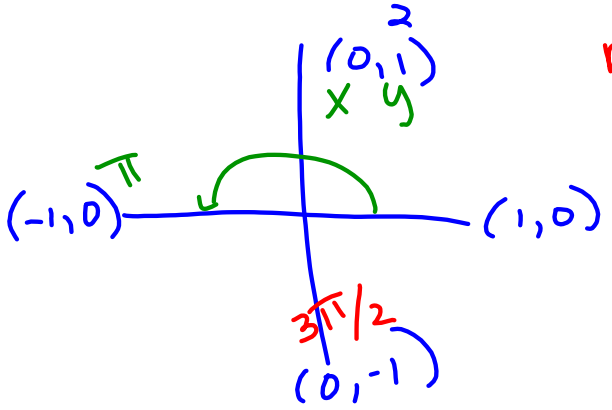


Mar 8-10:42 AM



Mar 8-10:51 AM

18. $\csc \frac{3\pi}{2}$



$x = 0$
$y = -1$
$r = 1$

$\csc \frac{3\pi}{2} = \frac{r}{y}$

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

$= -1$

$\cot \pi$
$x = -1$
$y = 0$
$\cot \pi = \frac{x}{y} = \frac{-1}{0}$ undef

Mar 8-10:54 AM

Trig Identity Strategies

Reciprocal:

Quotient:

Pythagorean:

1. Is there $(\ )^2$? → pyth
2. Is there $1 - \square^2$? → pyth
3. GCF? Perfect Trinomial square?
4. Convert to sin & cos.
5. Fractions →

$\frac{\square + \square}{\square}$ → break into 2 parts

$\frac{\triangle}{\bigcirc} + \frac{\square}{\square\square}$ → LCD

Mar 8-10:57 AM

Trig Id Puzzle #11.

$$(\csc\theta + \cot\theta)(1 - \cos\theta)$$

$$= \left(\frac{1}{\sin\theta} + \frac{\cos\theta}{\sin\theta}\right)(1 - \cos\theta)$$

$$= \left(\frac{1 + \cos\theta}{\sin\theta}\right)\left(\frac{1 - \cos\theta}{1}\right)$$

$$= \frac{1 - \cos^2\theta}{\sin\theta}$$

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

$$= \sin\theta$$

Mar 8-11:00 AM

10. $\dfrac{\sin\theta}{\cos\theta \tan\theta}$

$$= \frac{\sin\theta}{\cos\theta} \cdot \frac{1}{\tan\theta}$$

$$= \tan\theta \cdot \frac{1}{\tan\theta}$$

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

OR

$$\frac{\sin\theta}{\frac{\cos\theta}{1} \cdot \frac{\sin\theta}{\cos\theta}}$$

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

Mar 8-11:05 AM

$\csc^2\theta - \cot^2\theta$

$= 1$

$\cot^2\theta + 1 = \csc^2\theta$

$-\cot^2\theta \quad -\cot^2\theta$

$1 = \csc^2\theta - \cot^2\theta$

$\cot^2\theta - \csc^2\theta = -1$

Mar 8-11:07 AM

4. $\sec^2\theta - \cos^2\theta \sec^2\theta$

$= \sec^2\theta (1 - \cos^2\theta)$

$= \sec^2\theta (\sin^2\theta)$

$= \frac{1}{\cos^2\theta} \cdot \sin^2\theta$

$= \tan^2\theta$

Mar 8-11:09 AM

Basic 8 - finish it
Key

thu

After Lesson 8 - More practice w/ Trig Identities
Key

Tues
Quick Check 4.4
Identities

Quick Check Trig Identities
not posted
Team time on Tues to check it

Mar 8-11:11 AM

Notes pkt 8 Practice #6

strategy

6). $\sin^3 x + \sin x \cos^2 x$

Is there a GCF?

GCF? or Factorable?

$= \sin x (\sin^2 x + \cos^2 x)$

$= \sin x (1)$

$= \sin x$

Mar 8-11:49 AM

Trig Identities puzzle #11

$(\csc\theta + \cot\theta)(1-\cos\theta)$

$\left(\frac{1}{\sin\theta} + \frac{\cos\theta}{\sin\theta}\right)$

a factor of $1-\cos^2\theta$

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

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

Mar 8-11:52 AM

12. $(\tan^2\theta - \sec^2\theta)(\sin^2\theta + \cos^2\theta)$

$= (\tan^2\theta - \sec^2\theta)$

Identity sheet

$\tan^2\theta = \sec^2\theta - 1$

$\tan^2\theta + 1 = \sec^2\theta$

$-\sec^2\theta \quad -\sec^2\theta$

$-1 \quad -1$

$\tan^2 - \sec^2 = -1$

$(-1)(1) = -1$

Mar 8-11:56 AM

Strategies

sin & cos.

Look for GCF

Look to see if we can factor

Pyth. Identities →

Fractions

$\frac{\bigcirc + \square}{\triangle} = \frac{\bigcirc}{\triangle} + \frac{\square}{\triangle}$

$\frac{\bigcirc}{\triangle} \pm \frac{\square}{\bigcirc}$ create common den.

Mar 8-12:01 PM

- Simplifying Trig Identities Day 2
- Big 8
- After lesson 8 — Keys online
- Quick Check - Take home.

start now!

Tues

Formative 4.4 (HW) Trig Identities

15 mins of group time Tues.

Mar 8-12:04 PM