

Homework last week (11/11):

01: Sign up for Khan Academy with coach code 4CG5S2.

02: Read sections 5.1 and 5.2 in your textbook

03: Textbook problems

- 5.1 #1, 2, 7-18 all, 31-73 odd
- 5.2: #1-6 all; 15-41 odd; 59-75 odd (NO CALCULATOR!)  
See syllabus for proper formatting of written homework assignments.

Homework for this week (11/18):

01: Read sections 5.3 and 5.4 in your textbook

02: Textbook problems -- DUE WEDNESDAY 11/16

- 5.3: #1-35 odd; 37-48 all (NO CALCULATOR!); 61-68 all (NO CALCULATOR!)
- 5.4: #13-22 all (NO CALCULATOR!)

Wednesday - HW due; bring practice problems

Friday - class is cancelled

Test - Tues. 11/29

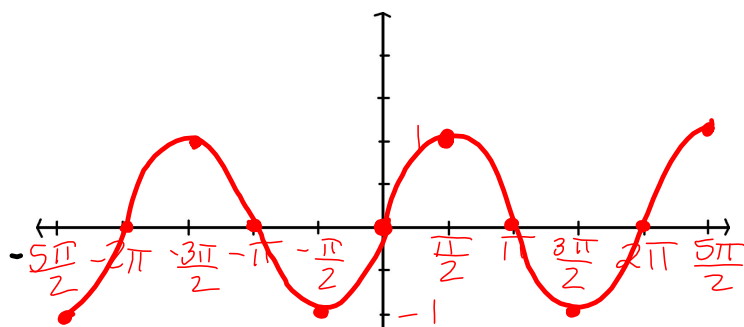
Graphs of the sine and cosine functions

$y = \sin x$

domain:  
 $(-\infty, \infty)$

range:  
 $[-1, 1]$

period:  
 $2\pi$



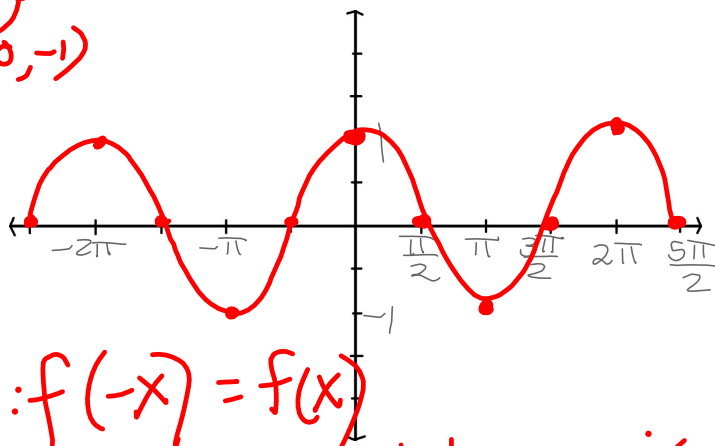
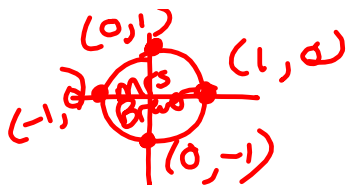
odd:  $f(-x) = -f(x)$   
Symmetric with respect to origin

$y = \cos x$

domain:  
 $(-\infty, \infty)$

range:  
 $[-1, 1]$

period:  
 $2\pi$



even:  $f(-x) = f(x)$   
symmetric with respect to y-axis

Domain/Range/Period/Graphs of the other 4 Trig functions?

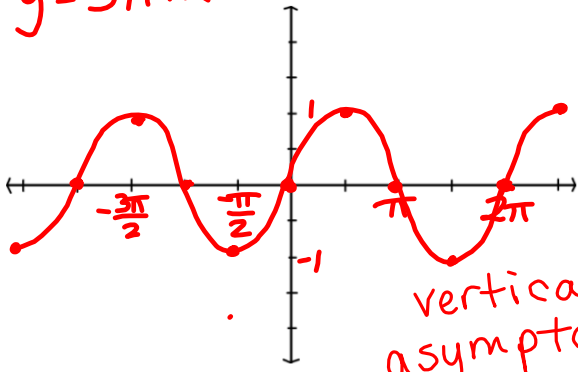
Function	Domain	Range	Period
$y = \sin x$	$(-\infty, \infty)$	$[-1, 1]$	$2\pi$
$y = \cos x$	$(-\infty, \infty)$	$[-1, 1]$	$2\pi$
$y = \csc x$	$\{x   x \text{ is not an integer multiple of } \pi\}$	$(-\infty, -1] \cup [1, \infty)$	$2\pi$
$y = \sec x$	$\{x   x \text{ is not an odd multiple of } \frac{\pi}{2}\}$	$(-\infty, -1] \cup [1, \infty)$	$2\pi$
$y = \tan x$	$\{x   x \text{ is not an odd multiple of } \frac{\pi}{2}\}$	$(-\infty, \infty)$	$\pi$
$y = \cot x$	$\{x   x \text{ is not an integer multiple of } \pi\}$	$(-\infty, \infty)$	$\pi$

Why?

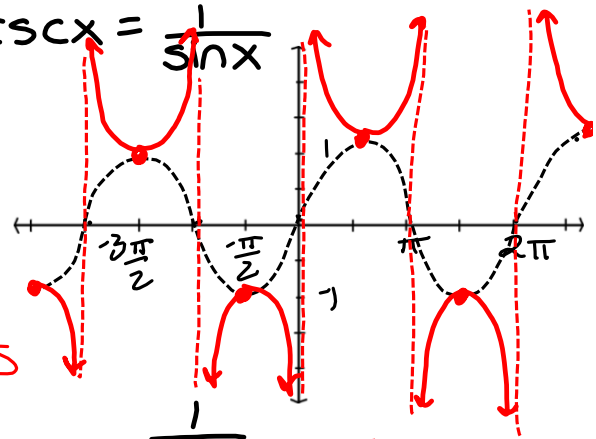
$$\csc x = \frac{1}{\sin x} \qquad \tan x = \frac{\sin x}{\cos x}$$

$$\sec x = \frac{1}{\cos x} \qquad \cot x = \frac{\cos x}{\sin x}$$

$y = \sin x$

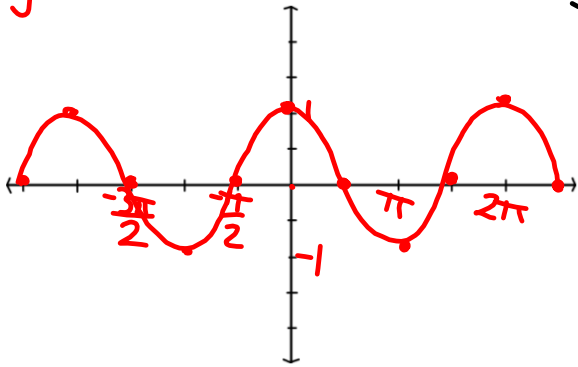


$y = \csc x = \frac{1}{\sin x}$

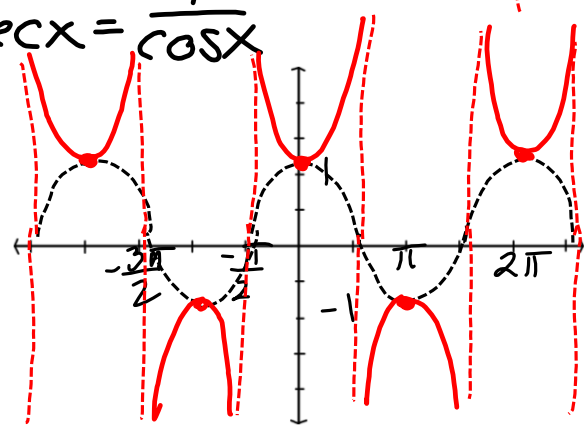


vertical asymptotes

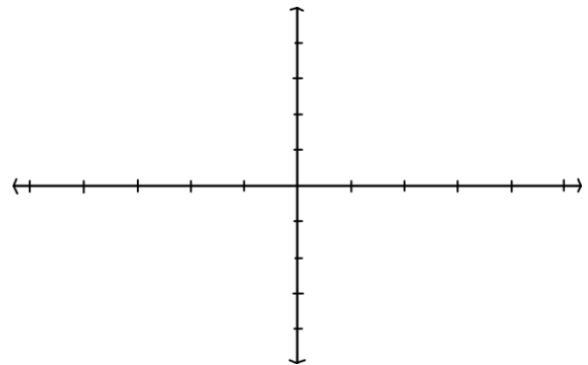
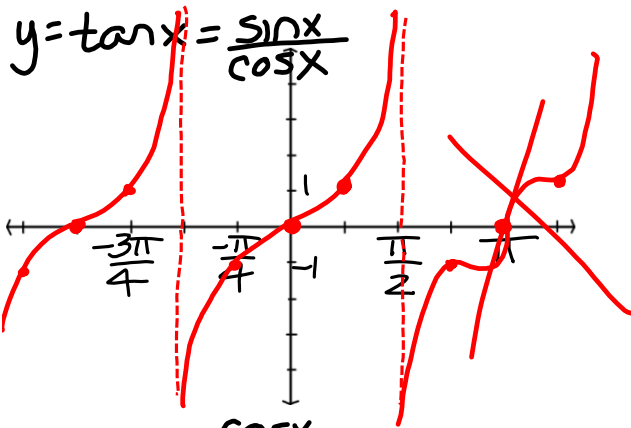
$y = \cos x$



$y = \sec x = \frac{1}{\cos x}$



$y = \tan x = \frac{\sin x}{\cos x}$



$y = \cot x = \frac{\cos x}{\sin x}$

