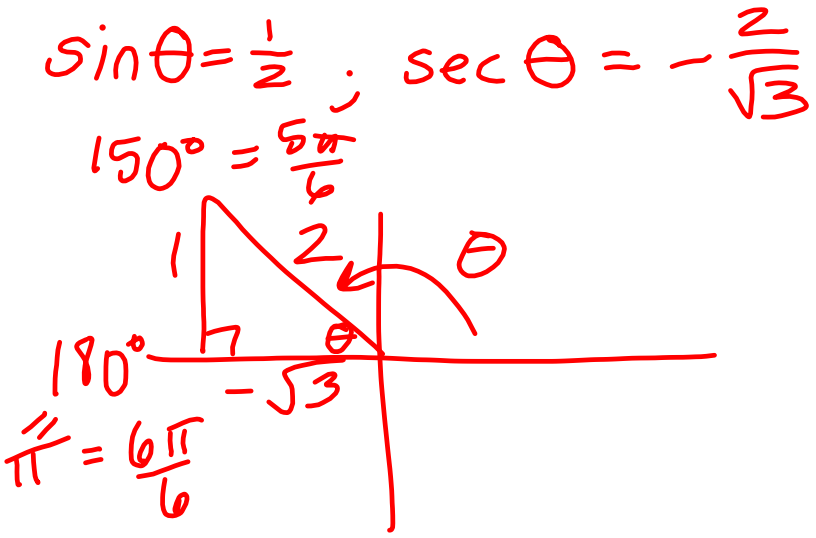
Homework last week (11/11):
01: Sign up for Khan Academy with coach code 4CG5S2.
02: Read sections 5.1 and 5.2 in your textbook
03: Textbook problems
- 5.1 #1, 2, 7-18 all, 31-73 odd
- 5.2: #1-6 all; 15-41 odd; 59-75 odd (NO CALCULATOR!)

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!)

Quiz - Today
Wednesday - HW due; bring practice problems
Friday - class is cancelled
Test - Tues. 11/29

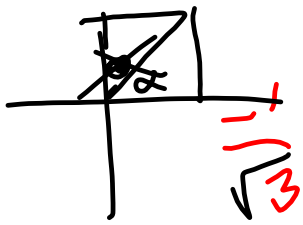


$\cos\pi \sin\frac{7\pi}{4} - \tan\frac{11\pi}{6}$

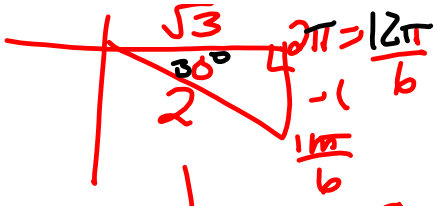
$(-1)\left(-\frac{\sqrt{2}}{2}\right) - \left(-\frac{\sqrt{3}}{3}\right)$

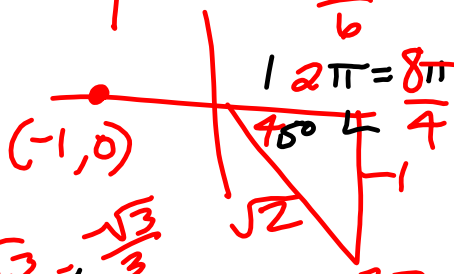
$\frac{3}{3}\cdot\frac{\sqrt{2}}{2} + \frac{\sqrt{3}}{3}\cdot\frac{2}{2}$

$\frac{3\sqrt{2} + 2\sqrt{3}}{6}$



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





$\frac{-1}{\sqrt{2}}\cdot\frac{\sqrt{2}}{\sqrt{2}} = -\frac{\sqrt{2}}{2}$

A function is a relation in which each input is mapped to a unique output.

Even/Odd Functions

A function f is even if $f(-x) = f(x)$

Symmetric with respect to y-axis

cos & sec

A function f is odd if $f(-x) = -f(x)$

Symmetric with respect to origin

sin, csc, tan, cot

Odd-Even Identities

$$\cos(-x) = \cos x \quad , \quad \sin(-x) = -\sin x \quad , \quad \tan(-x) = -\tan x$$
$$\sec(-x) = \sec x \quad , \quad \csc(-x) = -\csc x \quad , \quad \cot(-x) = -\cot x$$

$$\sin(-30^\circ) = -\sin 30^\circ$$
$$= -\frac{1}{2}$$

$$\cos(-150^\circ) = \cos 150^\circ = -\frac{\sqrt{3}}{2}$$

Domain/Range

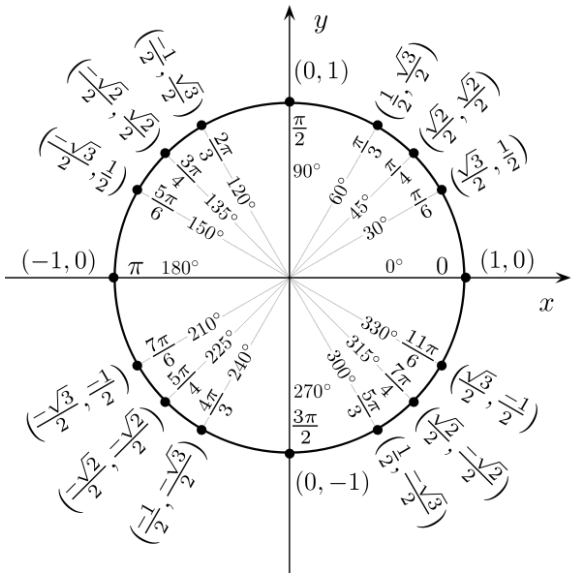
The domain of a function is the set of all input values for which the function is defined (all the x-values that "make sense" when plugged into the function)

The range of a function is the output of the domain (all the y-values that the function takes on)

Periodicity

The period of a function is the smallest interval over which the function repeats itself

Determining domain, range and period for the Sine & Cosine functions



	sin(x)	cos(x)
Domain	$\mathbb{R}$ $(-\infty, \infty)$	$\mathbb{R}$ $(-\infty, \infty)$
Range	$[-1, 1]$	$[-1, 1]$
Period	2π $360°$	2π $360°$