Day 7 Notes KEY

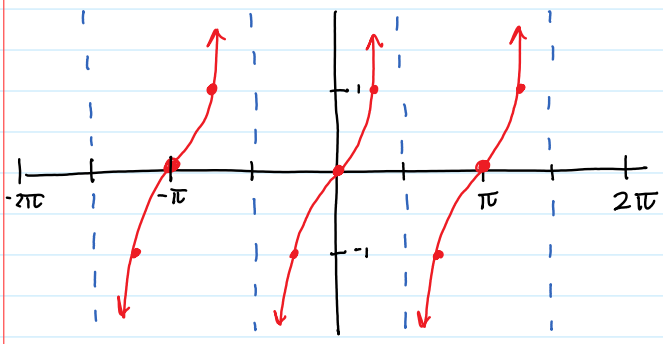
Monday, December 29, 2014 12:05 PM

The Graphs of Tangent, Cotangent, Secant & Cosecant

TANGENT

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

$y = \tan x$

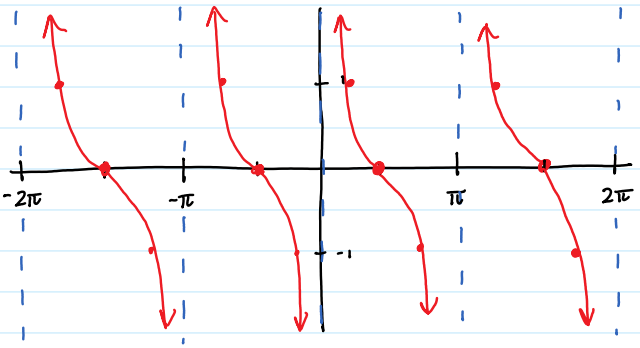


Asymptotes occur: @ zeros of cos

COTANGENT

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

$y = \cot x$



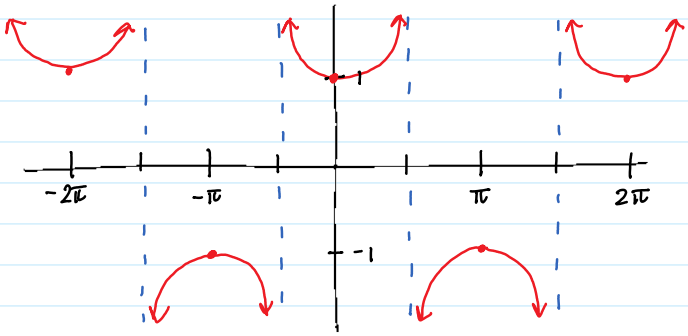
Asymptotes occur: @ zeros of sin

* PERIOD OF TAN & COT FUNCTIONS CAN BE FOUND BY $\frac{\pi}{|b|}$ (half the period of sin & cos functions) *

SECANT

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

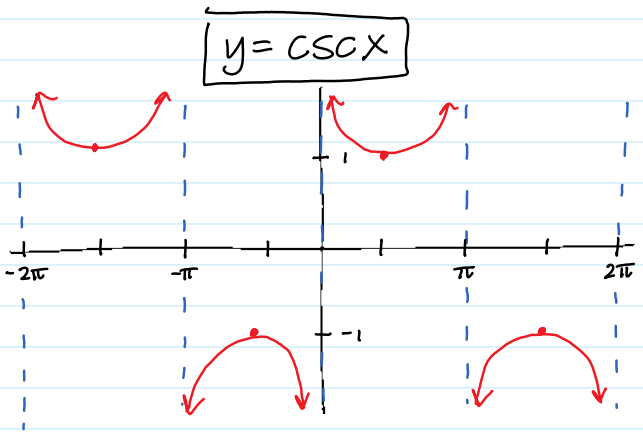
$y = \sec x$



COSECANT

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

$y = \csc x$



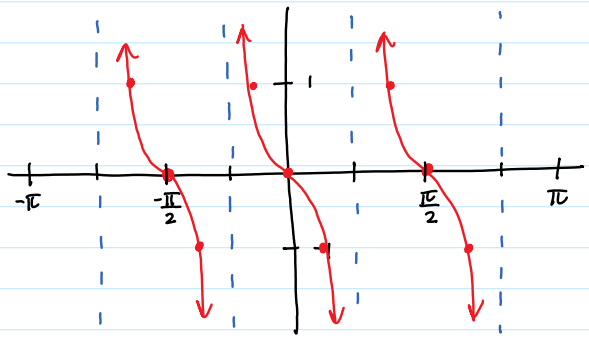
Asymptotes occur: @ zeros of cos

asymptotes occur: @ zeros of sin

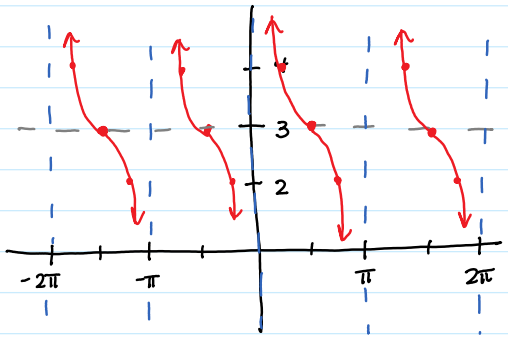
PERIOD OF SEC & CSC ARE THE SAME AS THEIR RECIPROCALS & CAN BE FOUND BY: $\frac{2\pi}{|b|}$

Transformations

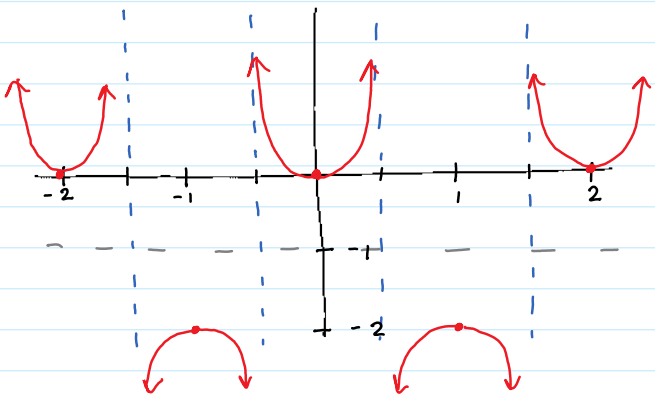
① $y = -\tan 2x$



② $y = \cot x + 3$



③ $y = \sec \pi x - 1$



④ $y = -2\csc x$