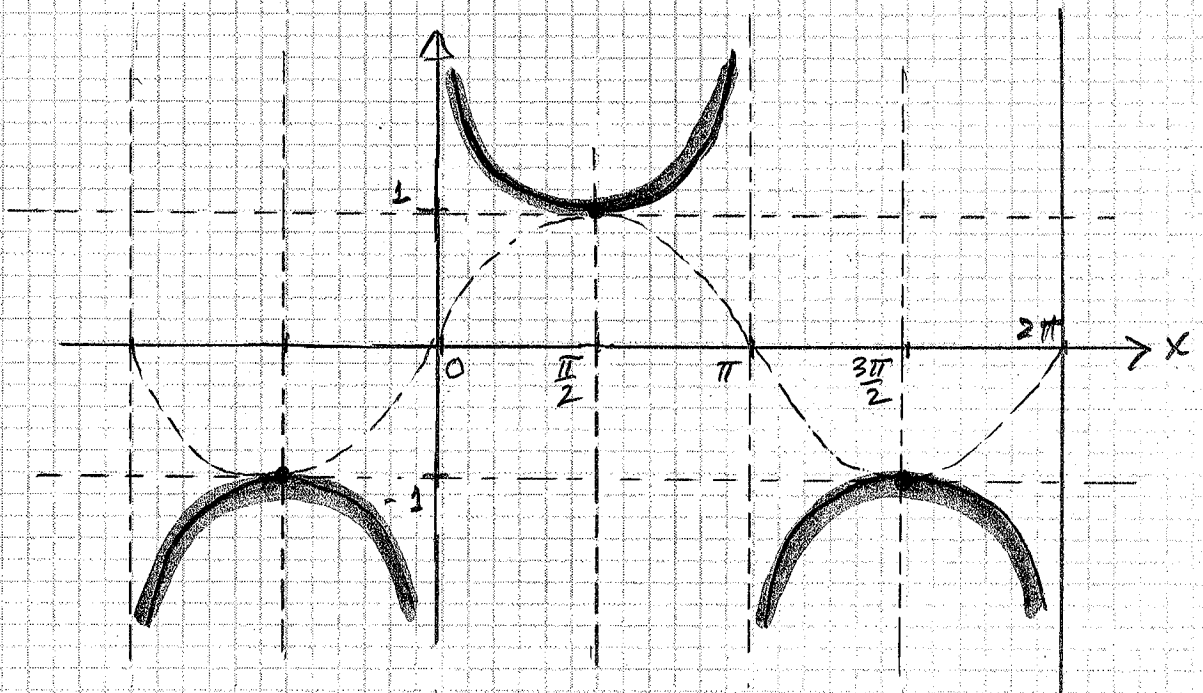


GRAPHS OF THE SECANT AND COSECANT



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

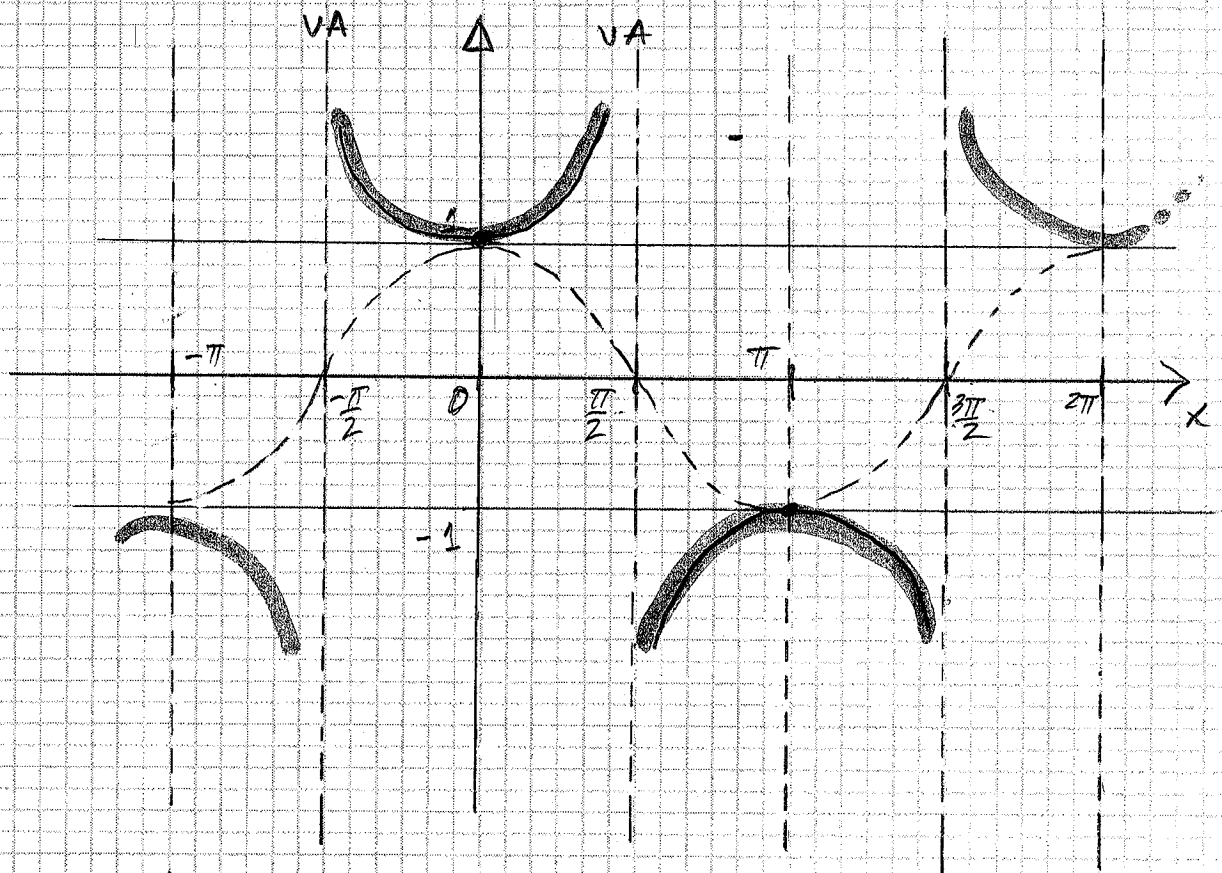
~~$$\csc x = \frac{1}{\sin x}$$~~

As $x \rightarrow \pi$ $\sin x \rightarrow 0$
and $\csc x \rightarrow +\infty$

Period = 2π

Domain ($\csc x$) = $\{x \mid x \neq n\pi, n \text{ int}\}$

Range = $(-\infty, -1] \cup [1, +\infty)$



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

$$\text{Period} = T = 2\pi$$

$$\text{Domain} = \{ x \mid x \neq (2n+1)\frac{\pi}{2}, n \text{ integer} \}$$

$$n=0 \quad n=1 \quad n=2$$

$$\text{Range} = (-\infty, -1] \cup [1, +\infty)$$