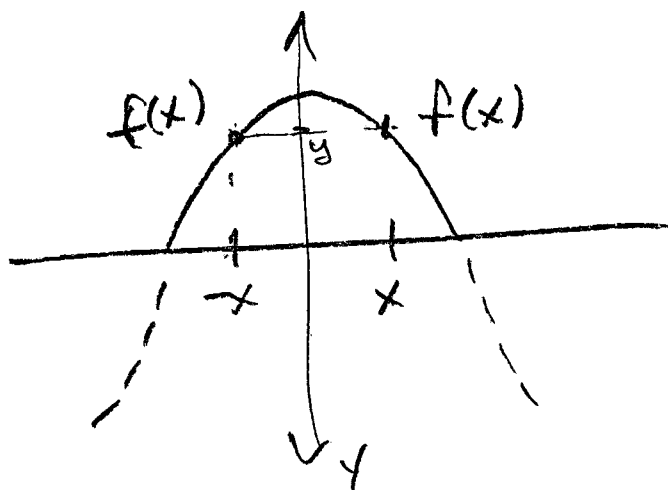


Mth113

4-12-13

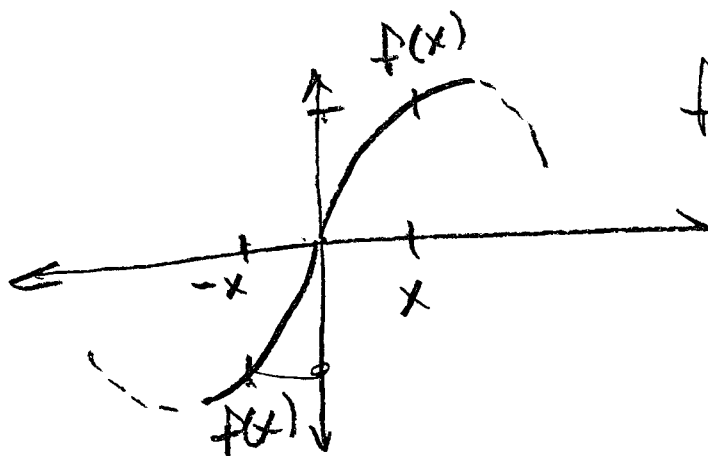
*

CLASS NOTES



$$f(-x) = f(x)$$

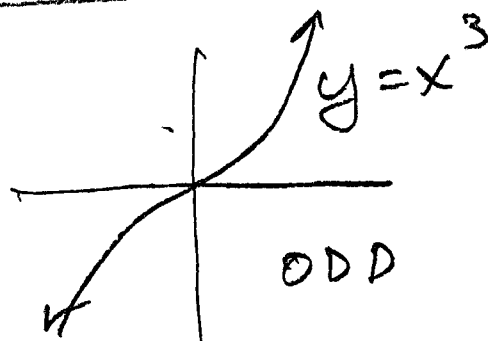
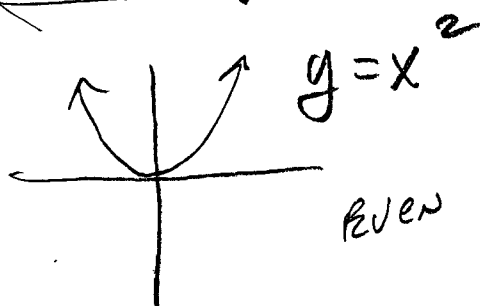
x EVEN




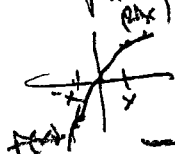
$$f(-x) = -f(x)$$

ODD

* DEFINITIONS OF EVEN/ODD FUNCTIONS



③ $\text{csc } x = \frac{1}{\sin x}$ SHOW $\text{csc } x$ IS AN ODD FUNCTION.
 pg 99


 $f(-x) = f(x) \Rightarrow \text{EVEN}$

 $f(-x) = -f(x) \Rightarrow \text{ODD}$

$$f(x) = \frac{1}{\sin(x)}$$

$$f(-x) = \frac{1}{\sin(-x)} = \frac{1}{-\sin(x)}$$

$$f(-x) = - \left(\frac{1}{\sin(x)} \right) \quad \boxed{\text{ODD}}$$

$f(x)$

$\therefore \text{csc } x$ IS ODD.

④ $\sec(x) = \frac{1}{\cos(x)}$ SHOW $\sec(x)$ IS EVEN
Pg 99

$$f(-x) = f(x) \Rightarrow \text{EVEN}$$

$$f(x) = \frac{1}{\cos(x)}$$

$$f(-x) = \frac{1}{\cos(-x)}$$

$$\text{IS } f(-x) = f(x) = ?$$

$$\therefore \sec(x) = \text{EVEN}$$

pg 19 GRAPH $y = -\cos 3x$

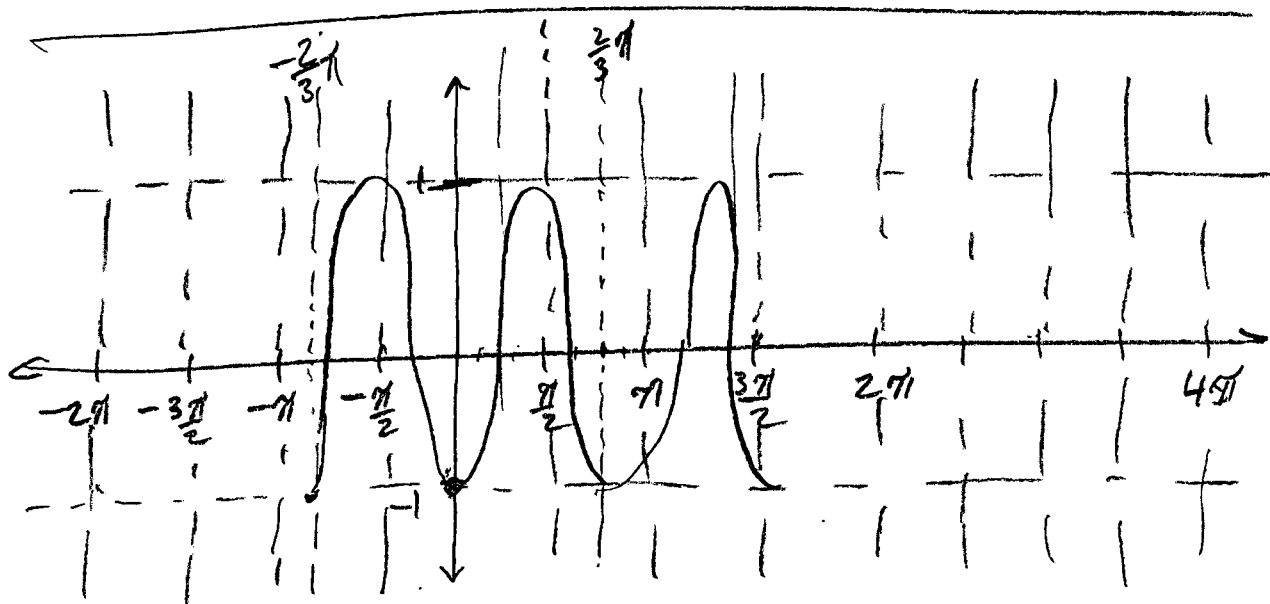
3 cycles,
Amp, period,
PHASE SHIFT

$$\text{Amp} \Rightarrow |-1| = 1$$

$$\text{VERT. SHIFT} = 0$$

$$\text{HORIZ. SHIFT} = 0$$

$$B=|3| \therefore \text{Period} = \frac{2\pi}{3}$$



(23)
pg 118

$$y = \sin(3x + 2\pi)$$

$$\text{Amp} = |1| = 1$$

$$B = |3| \circ \circ$$

$$y = \sin 3\left(x + \frac{2}{3}\pi\right)$$

$$P = \frac{2\pi}{3}$$

$$\text{Phase Shift} = \frac{2}{3}\pi \leftarrow$$

$$\text{Vert. Shift} = 0$$

