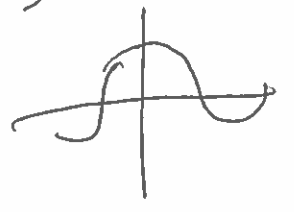


ODD/EVEN FUNCTIONS

Even Function

$$f(x) = x^2$$

$$f(-x) = (-x)^2 = x^2 = f(x)$$



$$\cos(-5) = \cos(5) = .28$$

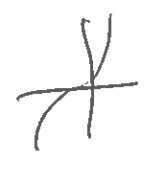
$$3x^4 + 2x^2 - 8 \leftarrow \text{even}$$
$$= 3(-x)^4 + 2(-x)^2 - 8$$

$$\cos(-2x-8) = \cos(1)(2x+8)$$
$$\cdot \cos(2x+8)$$

ODD Function

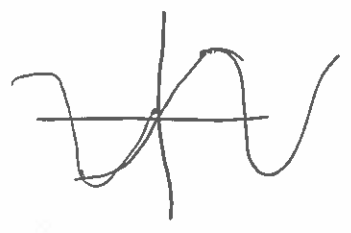
$$f(x) = x^3$$

$$f(-x) = (-x)^3 = -x^3 = -f(x)$$



$$\sin(-5) = -\sin(5)$$

$$8x^3 + 2x^5 + 9x^1$$



$$\sin(x+x) = \sin x \cos x + \sin x \cos x$$

Double
Angle
Identities

① $\sin(2x) = 2 \sin x \cos x$

② $\cos(2x) = \cos^2 x - \sin^2 x$

③ $\tan(2x) = \frac{2 \sin x \cos x}{\cos^2 x - \sin^2 x}$