September 16 2010

Note Title 9/16/2010

$g(x) = \sqrt{5 - 2x}$

$5 - 2x \geq 0$

$5 \geq 2x$

$\frac{5}{2} \geq x$ $\left(-\infty, \frac{5}{2}\right]$ Domain

#48] $2F(-1) - 2G(-3)$

$$F(t) = 4 - t^2$$

$$F(-1) = 4 - (-1)^2$$

$$= 4 - 1 = 3$$

$$G(x) = x^2 + 2x - 7$$

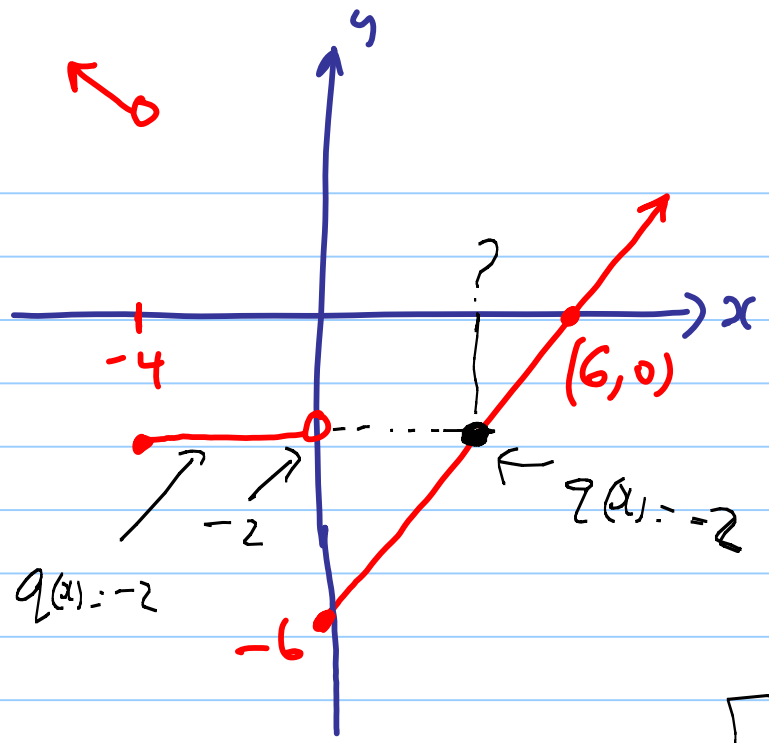
$$G(-3) = (-3)^2 + 2(-3) - 7$$

$$= 9 - 6 - 7$$

$$= -4$$

$$2F(-1) - 2G(-3) = 2(3) - 2(-4) = 6 + 8 = \boxed{14}$$

#30

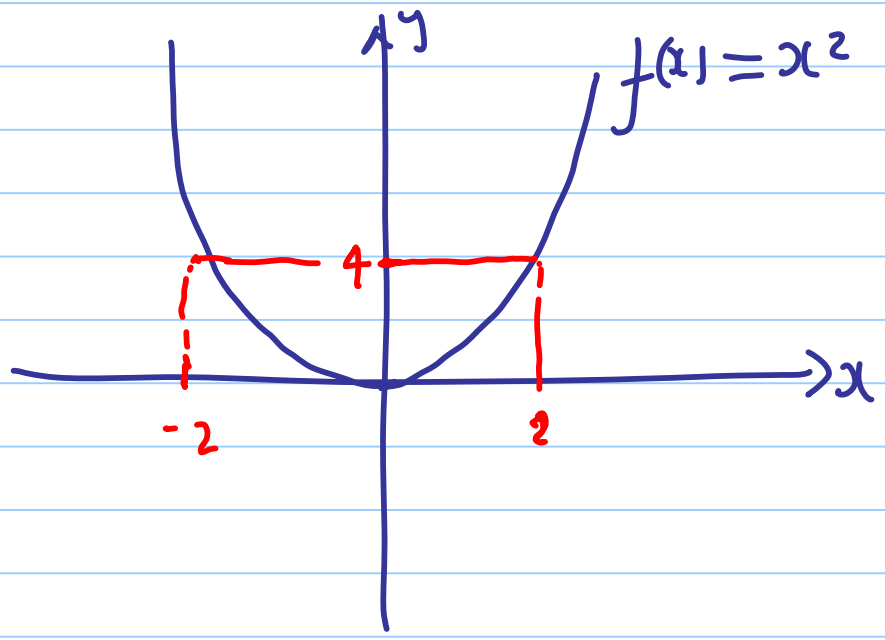


$[-4, 0) \cup \{4\}$

Find x if $g(x) = -2$.

Chapter 3.2 Graphs of Functions.

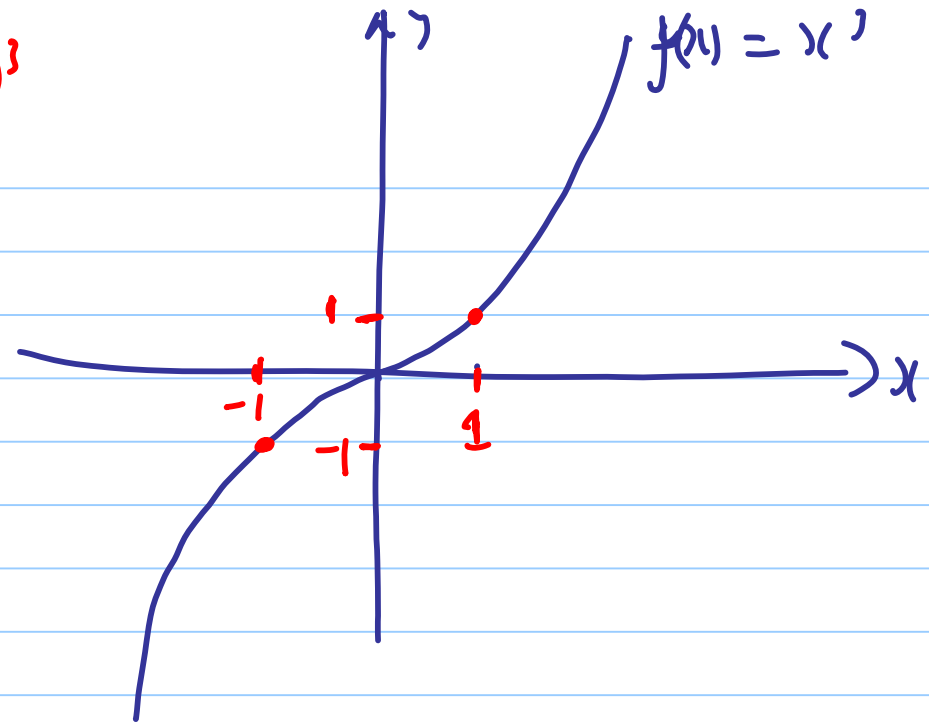
Odd & even functions



Symmetric with respect to y-axis.

$f(-1) = (-1)^3$

$= -1$



$f(1) = 1$

Example

a) $f(x) = x^2 - 3$

$f(-x) = (-x)^2 - 3$

$= x^2 - 3$

So

$f(-x) = f(x)$ Even function.

b) $g(x) = x^5 + x^3$

$g(-x) = (-x)^5 + (-x)^3$

$= -x^5 - x^3$

$g(-x) \neq g(x)$ Not even

$-g(x) = -(x^5 + x^3)$

$$= -x^5 - x^3$$

$g(x)$ is an odd function.

$$g(-x) = -g(x)$$

c) $h(x) = x^2 - x$

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

$$= x^2 + x$$

$h(-x) \neq h(x)$ (Not even).

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

$$= -x^2 + x$$

$h(-x) = -h(x)$ (Not odd)

h(x) Neither even nor odd!