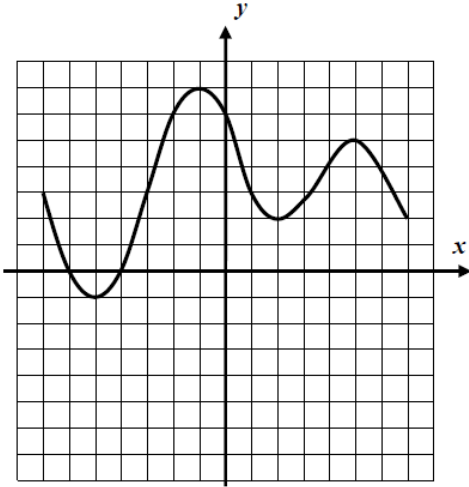


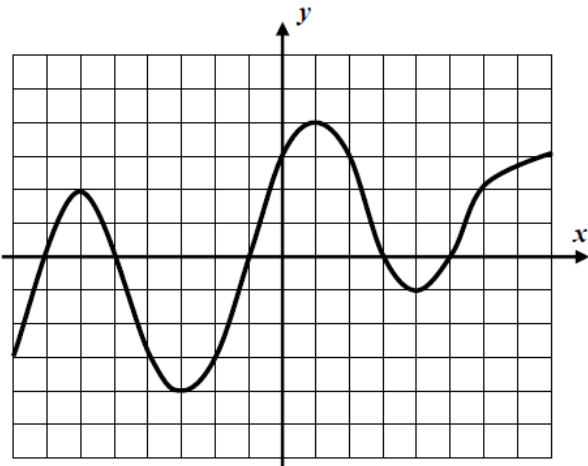
Name: _____
Date: _____
Class: _____

Algebra
Unit 4
HW 4-3

1) What is the y -intercept for the following function? Could a function have more than one y -intercept? Why or why not?

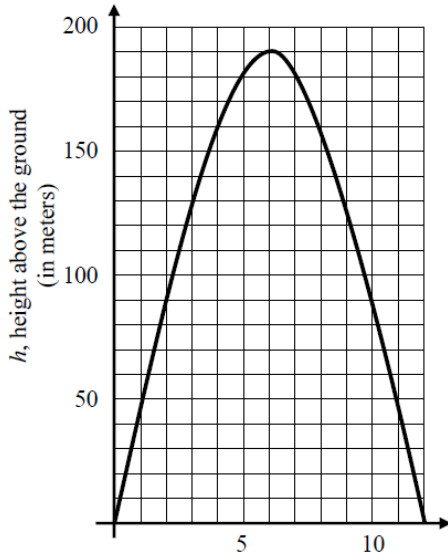


2) What would the relative maximum and minimum values be for the following function?



3) What would the absolute maximum and minimum value for the graph of the function in #2.

4)



a) On the interval $0 < x < 5$ is the function increasing or decreasing?

b) If this function is $y = h(x)$ what value would $f(6)$ be?

c) What is the maximum height the object reached?

d) How long was the object in the air?

5) On the following set of axis, create the graph of a function $f(x)$ with the following characteristics:

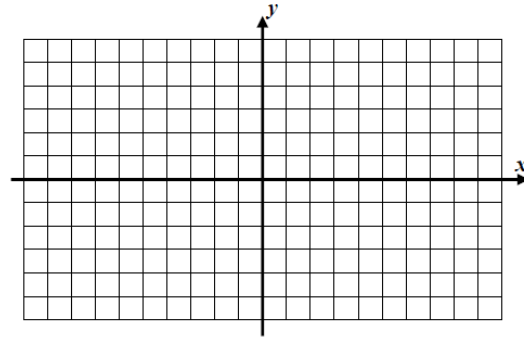
Passes through the points,

$(-8,0)$, $(5,-2)$ and $(8,3)$

Has an absolute maximum at $f(-4) = 5$

Has an absolute minimum at $f(2) = -6$

Decreasing on the interval on the interval $-4 \leq x \leq 2$



6) Sketch a graph of the piecewise function defined as follows:

$$h(x) = 6x - 10 \text{ on } x < 4 \text{ and } 4x - 2 \text{ on } x \geq 4$$