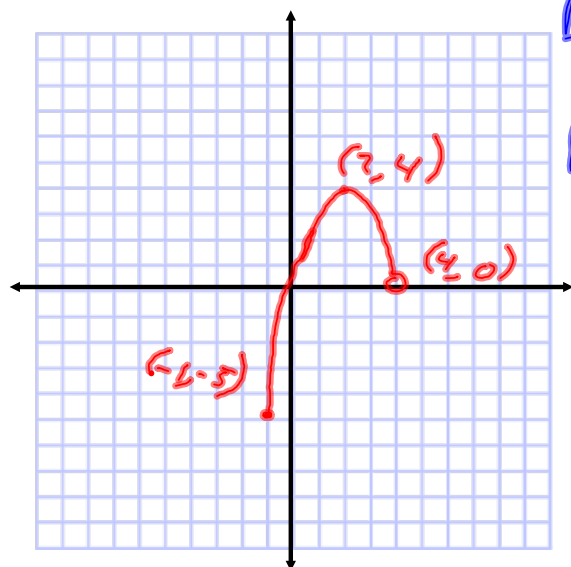


1.3 Graphs of Functions

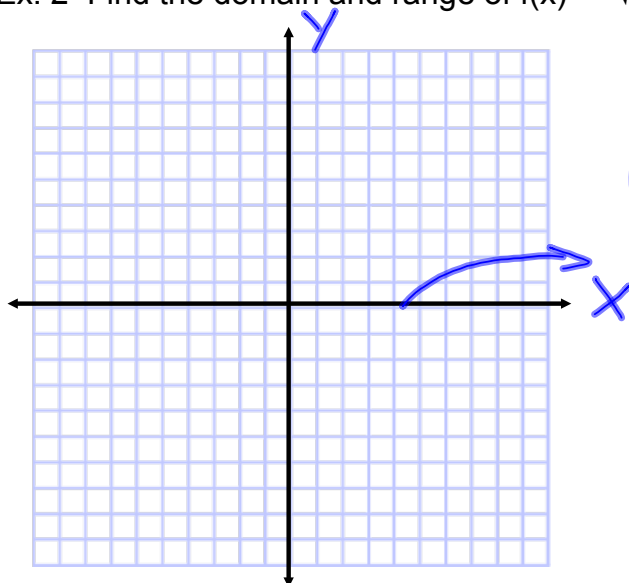
I. Find the domain and range.

Ex 1)



$$D: [-1, 4)$$

$$R: [-3, 4]$$

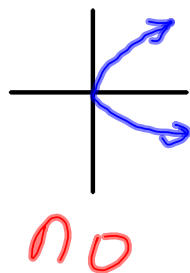
Ex. 2 Find the domain and range of $f(x) = \sqrt{x-4}$ 

$$D: [4, \infty)$$

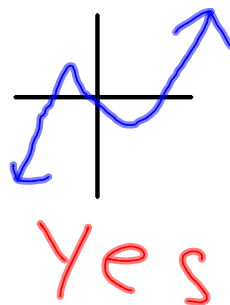
$$R: [0, \infty)$$

II. Vertical Line Test--A set of points in a coordinate plane is the graph of y as a function of x if and only if no vertical line intersects the graph at more than one point.

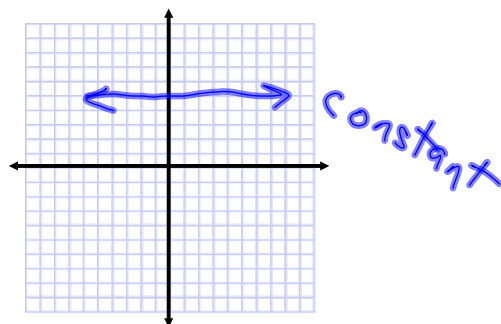
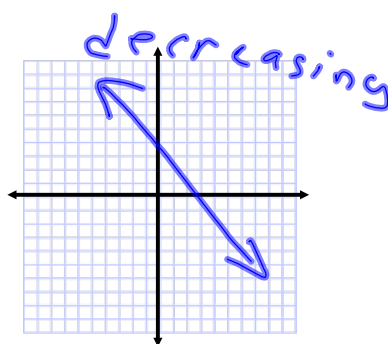
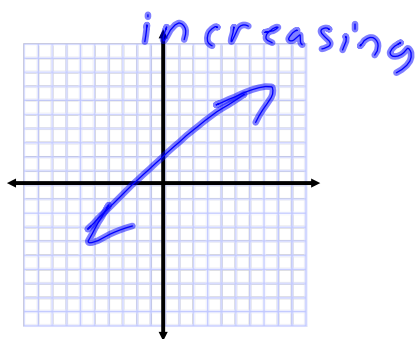
Ex 3)



Ex 4)



Ex. 5 Increasing, decreasing, and constant



IV. Relative Minimum and Maximum Values

Approximate all the minima and maxima if they exist.

Ex 6) $f(x) = 3x^2 - 4x - 2$

rel. min. = $-3.\bar{3}$

