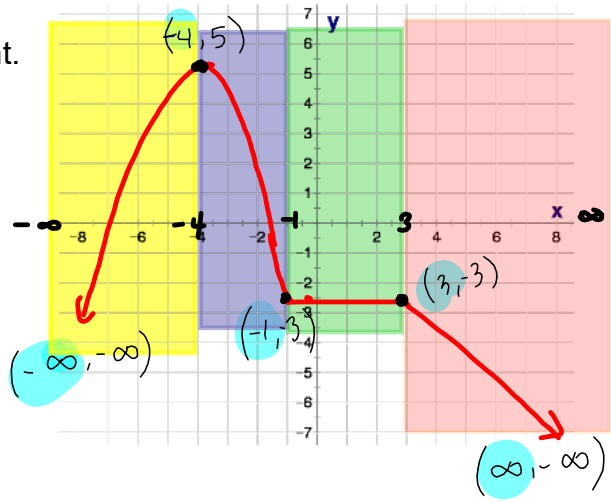
Sec 1.2 Day 2 # Increasing and Decreasing Functions

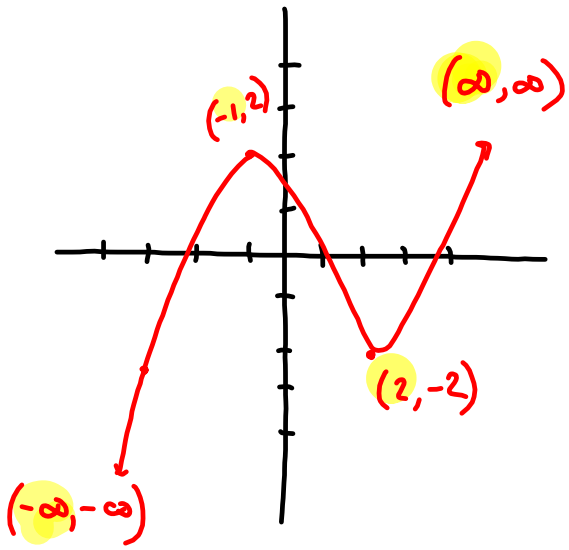
As you look at a function's graph from left to right:
if the graph is going up, it is increasing
if the graph is going down, it is decreasing
if the graph is a horizontal line, it is constant.



Where is the graph increasing, decreasing, constant?

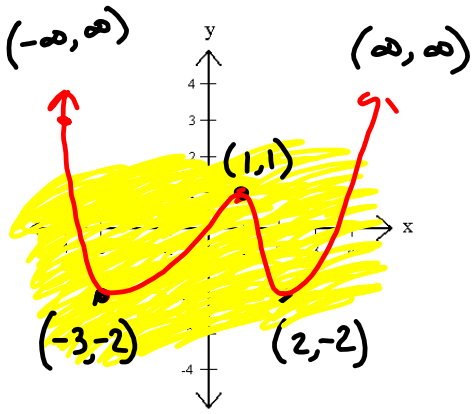
only look at the x of the ordered pairs for the interval.

inc : $(-\infty, -4)$
dec : $(-4, -1) \cup (3, \infty)$
constant : $(-1, 3)$ or $[-1, 3]$



inc $(-\infty, -1) \cup (2, \infty)$
dec $(-1, 2)$

Local and Absolute Extrema (max / min points)



Local - means just the middle viewing part of the graph.

max (1, 1)

min (-3, -2) , (2, -2)

Absolute (also called global) - the absolute ends of the graph.

max (-∞, ∞) (∞, ∞)

min (-3, -2) , (2, -2)