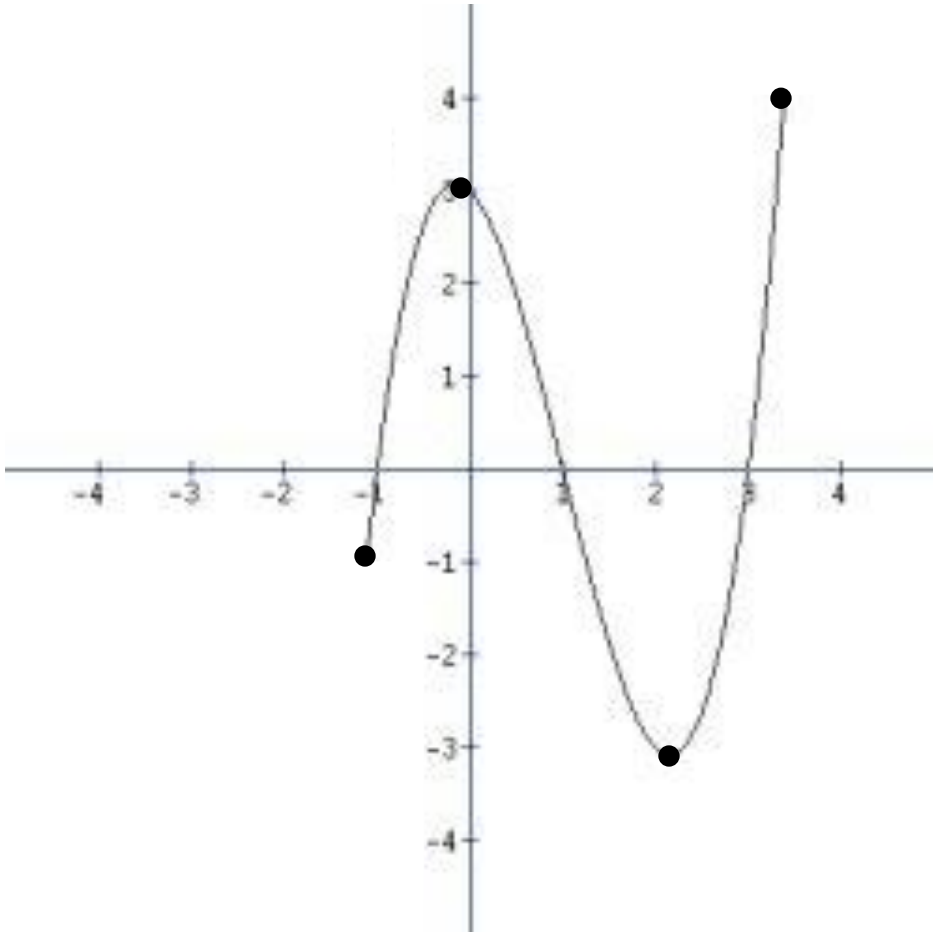
Characteristics of Graphs

Absolute Maximum: The highest y-value on a graph

Absolute Minimum: The lowest y-value on a graph

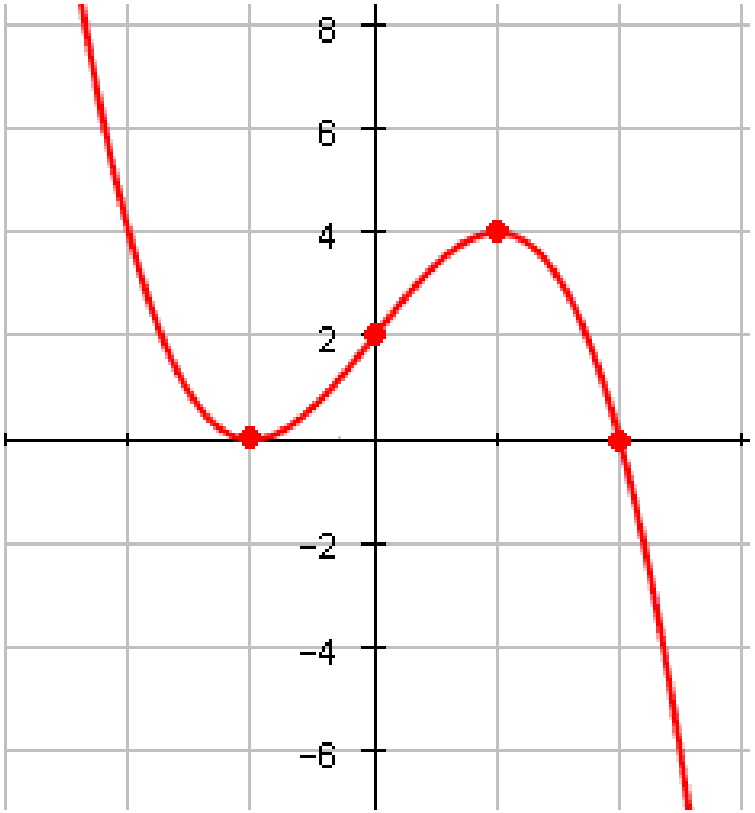


Abs. Max: y = 4

Abs. Min: y = -3

<u>Relative Maximum</u>: The point at the top of a “hill”

<u>Relative Minimum</u>: The point at the bottom of a “valley”

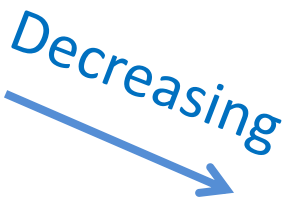


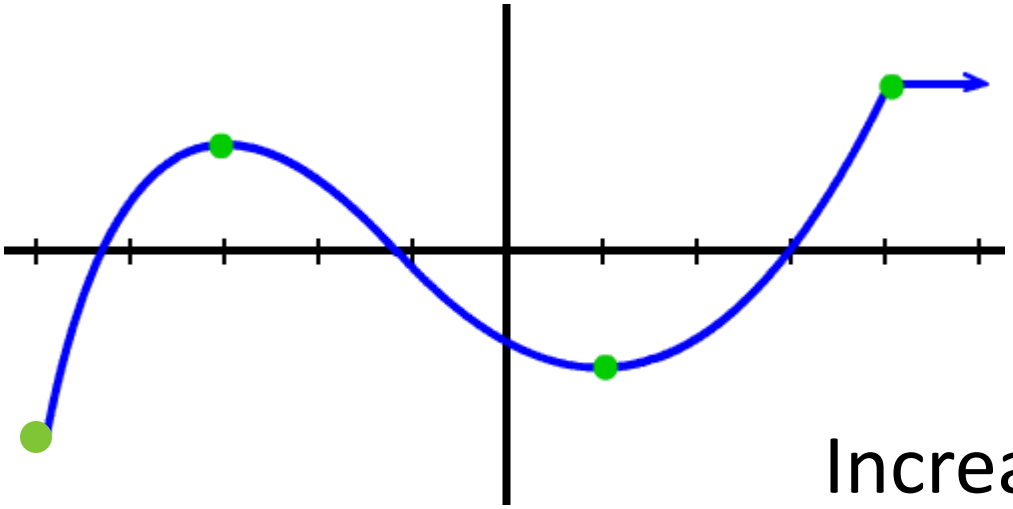
Relative Max: (2, 4)

Relative Min: (-2, 0)

<u>Increasing Interval</u>: where the function has a positive slope (going up)

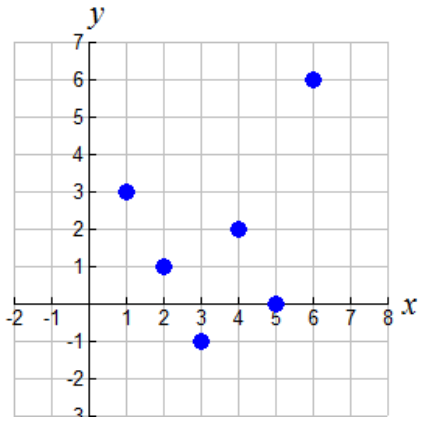
<u>Decreasing Interval</u>: where the function has a negative slope (moving downward)



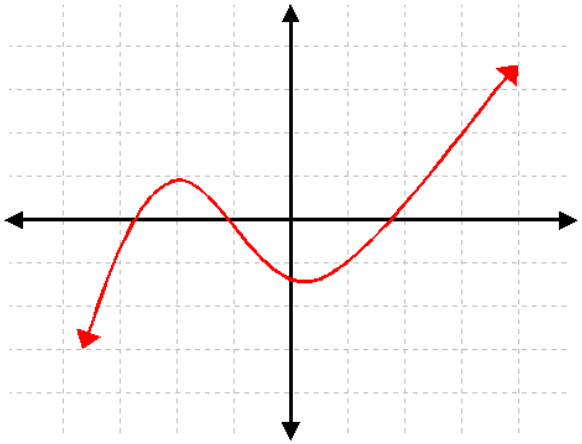


Increasing: (-5, -3)U(1, 4)

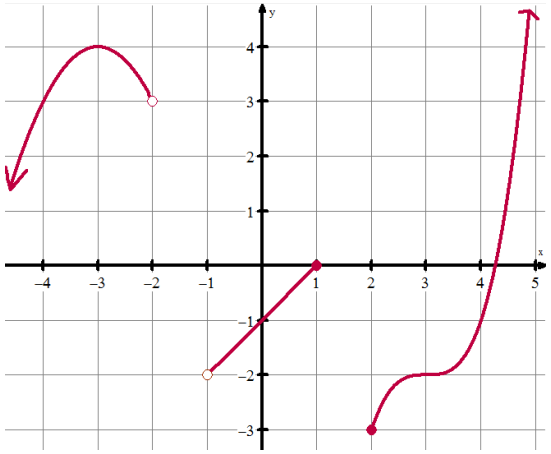
Decreasing: (-3, 1)



Discrete: unconnected graph, just data points



Continuous: connected graph, no breaks or holes



Discontinuous: a line that has at least one break or hole

Finite Interval: An interval that is a set length.

Ex) (4, 10]

Infinite Interval: An interval that goes to infinity in one or both directions.

Ex) $(-\infty, 3]$