

Extrema and intervals for Increasing/Decreasing

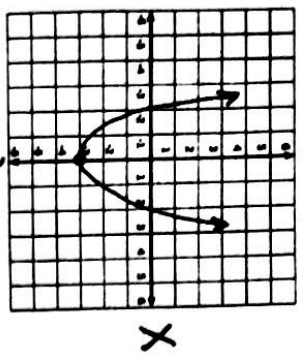
Intervals for Increasing/Decreasing

Start by finding the extrema. Use the x-coordinates only to write the intervals!

Extrema:

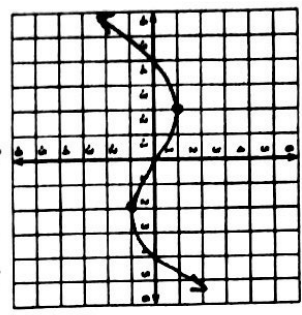
absolute maximum - highest/lowest point on the entire graph
 relative maximum - highest/lowest point on a section of the graph

EX1.



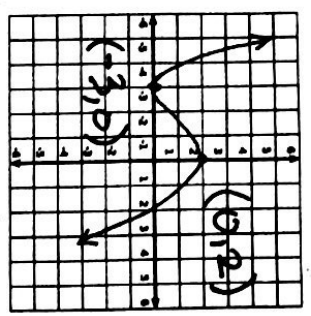
$(0, -3)$
 Absolute min

EX2.



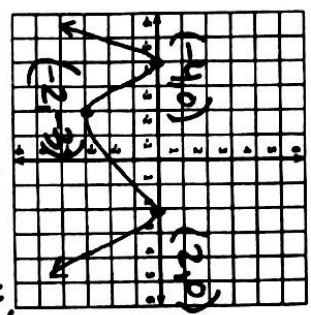
$(-2, 1)$ relative max
 $(2, -1)$ relative min

EX3.



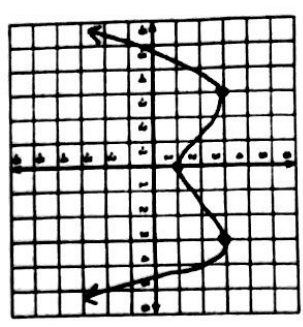
Inc: $(-3, 0)$
 Dec: $(-\infty, -3) \cup (0, \infty)$

EX4.



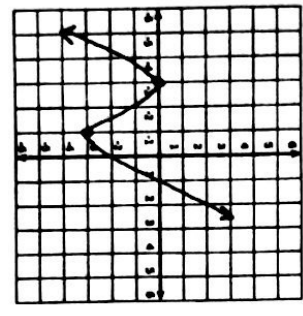
Inc: $(-\infty, -4) \cup (2, 2)$
 Dec: $(-4, -2) \cup (2, \infty)$

EX3.



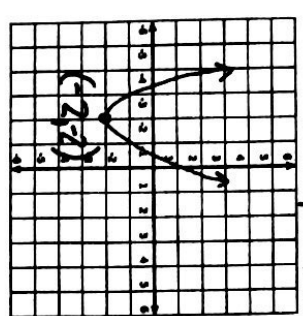
$(3, 3)$ absolute max
 $(0, 1)$ absolute min
 $(3, 3)$ relative max

EX4.



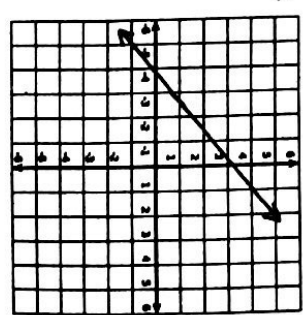
$(-3, 0)$ relative max
 $(-1, -3)$ relative min

EX7.



Inc: $(-2, \infty)$
 Dec: $(-\infty, -2)$

EX8.



Inc: $(-\infty, \infty)$
 Dec: (none)

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