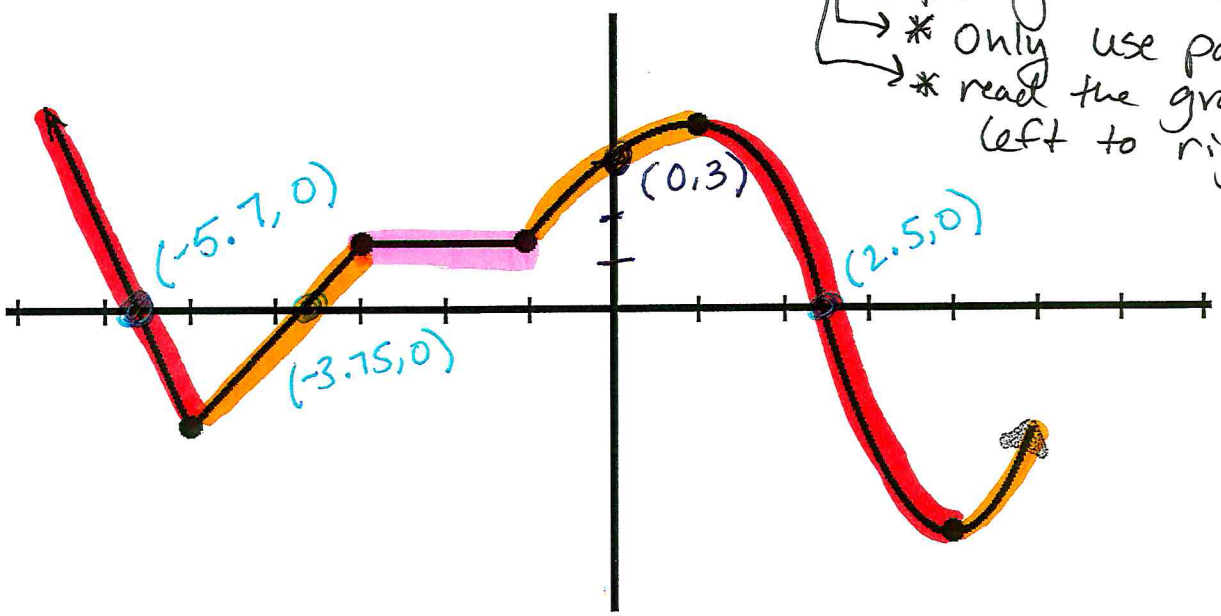
Increasing, Decreasing and Constant Intervals and End Behavior

For the following graph, list the intervals where the graph is increasing, decreasing and constant.
Describe the end behavior of the graph.

* only look at x-values
* Only use parentheses
* read the graph from left to right!



Increasing: the interval over the domain where the function increases.

"union"

$(-5, -3) \cup (-1, 1) \cup (4, +\infty)$

Decreasing: the interval over the domain where the function decreases

$(-\infty, -5) \cup (1, 4)$

Constant: the interval over the domain where the function stays the same.

$(-3, -1)$

"sentence starter"

End Behavior:
the behavior of the function when x approaches $-\infty$ and $+\infty$

Left: $x \to -\infty$, $y \to +\infty$

Right: $x \to +\infty$ $y \to +\infty$

x-intercept(s): Where the graph crosses the x-axis
* ordered pair * y is zero!

y-intercepts(s): Where the graph crosses the y-axis
* ordered pair * x is zero!