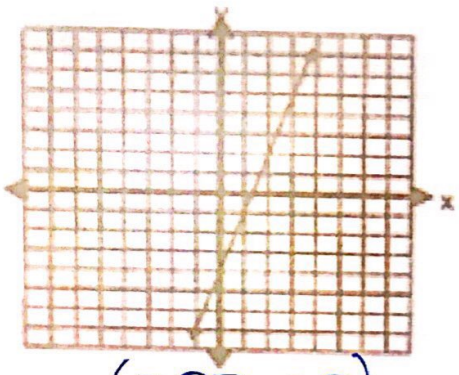
Examples Finding Domain & Range, Increasing/Decreasing, and End Behavior

Find the requested information of the following functions. Use proper notation!

1.



Domain: $(-\infty, \infty)$

Range: $(-\infty, \infty)$

Increasing: $(-\infty, \infty)$

Decreasing: —

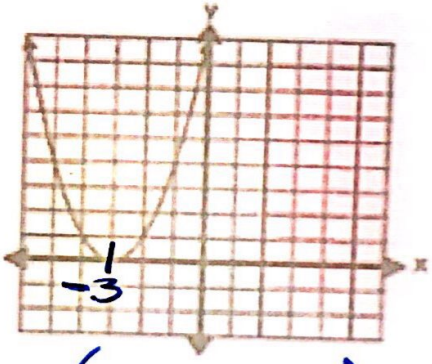
End Behavior:

As $x \to -\infty$, $y \to \infty$

As $x \to \infty$, $y \to -\infty$

Even or odd? Neither

3.



Domain: $(-\infty, \infty)$

Range: $[0, \infty)$

Increasing: $(-3, \infty)$

Decreasing: $(-\infty, -3)$

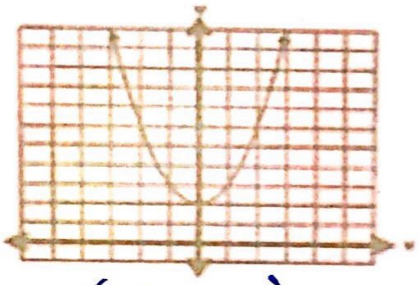
End Behavior:

As $x \to -\infty$, $y \to \infty$

As $x \to \infty$, $y \to \infty$

Even or odd: Neither

2.



Domain: $(-\infty, \infty)$

Range: $[2, \infty)$

Increasing: $(0, \infty)$

Decreasing: $(-\infty, 0)$

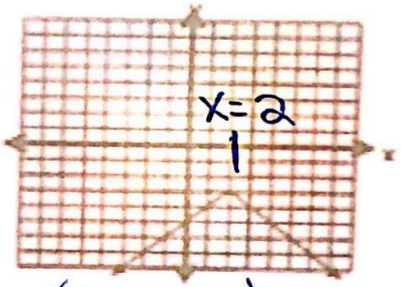
End Behavior:

As $x \to -\infty$, $y \to \infty$

As $x \to \infty$, $y \to \infty$

Even or odd?

4.



Domain: $(-\infty, \infty)$

Range: $(-\infty, -3]$

Increasing: $(-\infty, 2)$

Decreasing: $(2, \infty)$

End Behavior:

As $x \to -\infty$, $y \to -\infty$

As $x \to \infty$, $y \to -\infty$

Even or odd? Neither