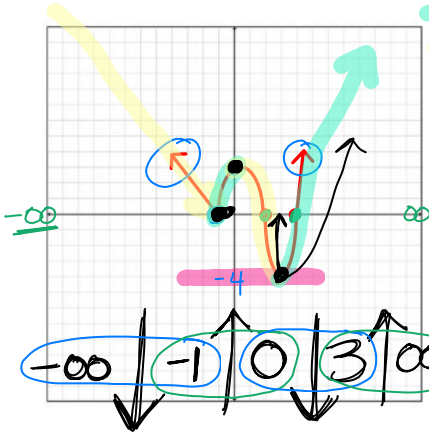
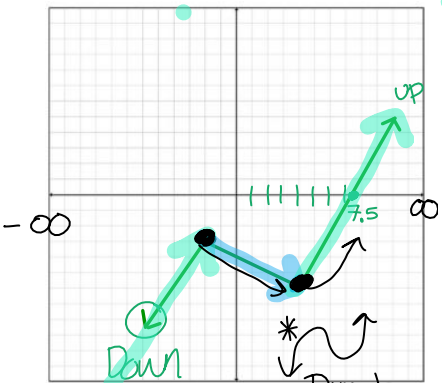


### 3.1 Characteristics of Functions

Name: \_\_\_\_\_



- Increasing Interval(s):  $(-1, 0) (3, \infty)$
- Decreasing Interval(s):  $(-\infty, -1) (0, 3)$
- Constant Interval(s): none
- Absolute Minimum:  $(3, -4)$
- Absolute Maximum: none
- Relative Minimum:  $(-1, 0)$
- Relative Maximum:  $(0, 3)$
- Domain:  $(-\infty, \infty)$
- Range:  $[-4, \infty)$
- X-intercept:  $(-1, 0) (2, 0) (4, 0)$
- Y-intercept:  $(0, 3)$
- End Behavior:  $x \rightarrow -\infty$   $y \rightarrow \infty$  (L)
- $x \rightarrow \infty$   $y \rightarrow \infty$  (R)

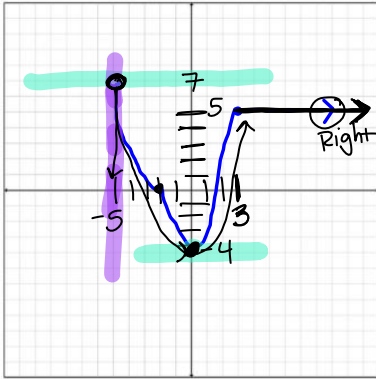


- Increasing Interval(s):  $(-\infty, -2) (4, \infty)$
- Decreasing Interval(s):  $(-2, 4)$
- Constant Interval(s): none
- Absolute Minimum: none
- Absolute Maximum: none
- Relative Minimum:  $(4, -6)$
- Relative Maximum:  $(-2, -3)$
- Domain:  $(-\infty, \infty)$
- Range:  $(-\infty, \infty)$
- X-intercept:  $(7.5, 0)$
- Y-intercept:  $(0, -4)$
- End Behavior:  $x \rightarrow -\infty$   $y \rightarrow \infty$  (L)
- $x \rightarrow \infty$   $y \rightarrow \infty$  (R)

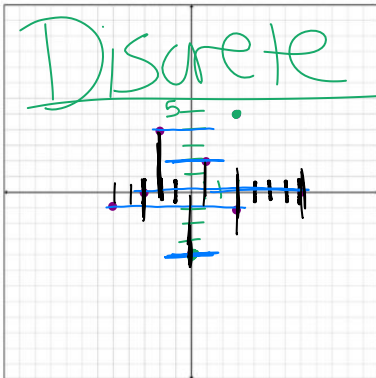


### 3.1 Characteristics of Functions

Name: \_\_\_\_\_



- Increasing Interval(s):  $(0, 3)$
- Decreasing Interval(s):  $(-5, 0)$
- Constant Interval(s):  $(3, \infty)$
- Absolute Minimum:  $(0, -4)$
- Absolute Maximum:  $(-5, 7)$
- Relative Minimum: none
- Relative Maximum: none
- Domain:  $(-5, \infty)$
- Range:  $[-4, 7]$
- X-intercept:  $(-2, 0)$   $(1.5, 0)$
- Y-intercept:  $(0, -4)$
- End Behavior:  $x \rightarrow -\infty$   $y \rightarrow$  none  $x \rightarrow \infty$   $y \rightarrow 5$



- Increasing Interval(s): none
- Decreasing Interval(s): none
- Constant Interval(s): none
- Absolute Minimum:  $(0, -4)$
- Absolute Maximum:  $(3, 5)$
- Relative Minimum: none
- Relative Maximum: none
- Domain:  $\{-5, -3, -2, 0, 1, 3, 7\}$
- Range:  $\{-4, -1, 0, 2, 4, 5\}$
- X-intercept:  $(-3, 0)$   $(7, 0)$
- Y-intercept:  $(0, -4)$
- End Behavior:  $x \rightarrow -\infty$   $y \rightarrow$  none  $x \rightarrow \infty$   $y \rightarrow$  none