Vocab Booklet

Domain:
- Set of all x-values for which a function is defined.
- All allowed inputs to the function.
- Values of x where the graph exists as you move left and right across the graph.

Range:
- Set of all y-values for which a function is defined.
- All the outputs of a function.
- Values of y where the graph exists as you move up and down the graph.

Linear Family of Functions:

Example Equation: $y = -2x + 5$

X	Y
−2	9
−1	7
0	5
1	3
2	1

Parent Function: $y = x$

$y = -2x + 5$ Domain: R Range: R

Symbol for ALL REAL #'s

$y = x$ R R

Vocab Booklet

Intervals of increasing and decreasing.

Interval:
- values of x
- Usually given as an inequality. ex: $x \geq 3$, $-2 < x < 0$

Increasing interval: When the value of x increases the value of y increases (as you move to the right the graph goes up)

Decreasing interval: When the value of x increases the value of y decreases (as you move to the right the graph goes down)

Linear Family of Functions:

Example Equation: $y = -2x + 5$

X	Y
−2	9
−1	7
0	5
1	3
2	1

Parent Function: $y = x$

Intervals of increasing and decreasing.

$y = -2x + 5$ Increasing: none Decreasing: $-\infty < x < \infty$

Interval notation for ALL REAL #'s

$y = x$ $-\infty < x < \infty$ none

Interval notation for ALL REAL #'s

Vocab Booklet

Intercepts of a graph: Where a graph crosses an axis.

x-int:

- Where a graph crosses the x-axis.
- Values of x that make y = 0.
- To find x-int you replace y with zero and solve for x.
- A function can have:
  - no x-int
  - one x-int
  - many x-int

y-int:

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