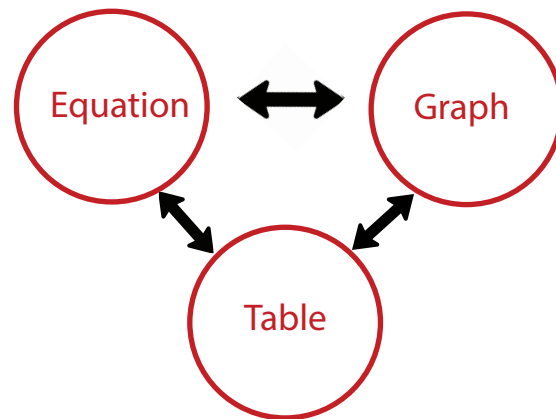


Interpreting Functions

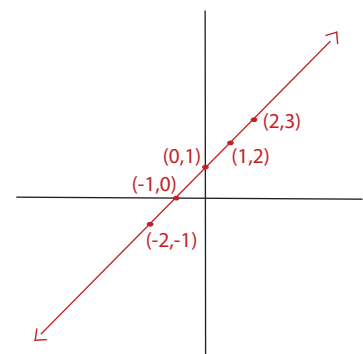
Equations, Graphs, and Tables are all able to be converted and created from one another



Example: $y = x + 1$

$$\begin{aligned} y &= (-2) + 1 = -1 \longrightarrow (-2, -1) \\ y &= (-1) + 1 = 0 \longrightarrow (-1, 0) \\ y &= (0) + 1 = 1 \longrightarrow (0, 1) \\ y &= (1) + 1 = 2 \longrightarrow (1, 2) \\ y &= (2) + 1 = 3 \longrightarrow (2, 3) \end{aligned}$$

x	y
-2	-1
-1	0
0	1
1	2
2	3



Key Features of Graph

- **y-intercept**
*Where a graph crosses the y-axis and there can be more than 1 or none
- **x-intercept**
*Where a graph crosses the y-axis and there can be more than 1 or none
- ◆ **Vertex**
*The minimum(lowest) or maximum(highest) value of graph. There is either one or none
- **Decreasing**
*Where the graphs y-values are getting smaller. It switches to increasing at the vertex.
- **Increasing**
*Where the graphs y-values are getting larger. It switches to decreasing at the vertex.
- **Positive**
*This line show were the graph is considered positive i.e. anywhere it is ABOVE the x-axis
- **Negative**
*This line show were the graph is considered negative i.e. anywhere it is BELOW the x-axis

