

**Function Vocabulary Review**

**Relation:** a set of ordered pairs

$$\begin{array}{c|c} X & Y \\ \hline -2 & 3 \\ 0 & 7 \\ 1 & 9 \end{array} \quad \{(-2, 3), (0, 7)\}$$

**Function:** a relation in which every input is paired with exactly one output; "x - values do not repeat"

$$\begin{array}{c|c} X & Y \\ \hline -2 & 4 \\ -1 & 1 \\ 0 & 1 \end{array} \leftarrow \text{Function}$$

$$\begin{array}{c|c} X & Y \\ \hline 4 & -2 \\ 0 & 0 \\ 4 & 2 \end{array} \leftarrow \text{Not a function}$$

**Vertical Line Test:** A test used to determine if a relation is a function. If any vertical line crosses the graph more than once, the relation is **NOT** a function.

Function

Not a function

**Domain:** set of all possible input values; "x - values"

**Range:** set of all possible output values; "y - values"

**Interval Notation:** A way of writing a set of real numbers between two endpoints. The symbols [ and ] are used to include an endpoint in the interval, and the symbols ( and ) are used to exclude an endpoint from an interval.

<u>Inequalities</u>	<u>Interval Notation</u>
$x > 3$	$(3, \infty)$
$x \geq 3$	$[3, \infty)$
$-2 < x < 5$	$(-2, 5)$
$-2 < x \leq 5$	$(-2, 5]$