Vocabulary: Introduction to Functions



**Vocabulary**

* Domain – the set of all input (*x*) values of a relation.
* Function – a set of ordered pairs such that for each input (*x*) value, there is one and only one output (*y*) value.
* Input – a number that goes into a relation; an *x*-value.
	+ An input value is the firstelement in an ordered pair. For example, in the ordered pair, (3, 4), the number 3 is the input.
	+ In the equation *y* = *x* + 1, if the input is 3, the output is 4.
* Mapping diagram – a diagram that contains two columns consisting of input and output values that can be paired to form a relation.
	+ Pairs of values can be plotted as points in the *x, y*-coordinate plane.
	+ This mapping diagram shows 1 mapped onto 3, 3 mapped onto 2, and 4 mapped onto 5. The mapping represents the ordered pairs (1, 3), (3, 2), and (4, 5).
* Ordered pair – the coordinates of a point in which the first coordinate represents its
*x*-value and the second coordinate represents its *y-*value.
	+ For example, (3, 4) is an ordered pair where *x* = 3, and *y* = 4.
	+ In the ordered pair (3, 4), 3 is the input, and 4 is the output.
* Output – a number that results from a relation; a *y*-value.
	+ An output value is the secondelement in an ordered pair. For example, in the ordered pair, (3, 4), the number 4 is the output.
	+ In the equation *y* = *x* + 1, if the input is 3, the output is 4.
* Range – the set of all output (*y*) values of a relation.
* Relation – a set of ordered pairs.