3.1 Quadratic Functions in General Form

* A quadratic function is in general form when it looks like this:
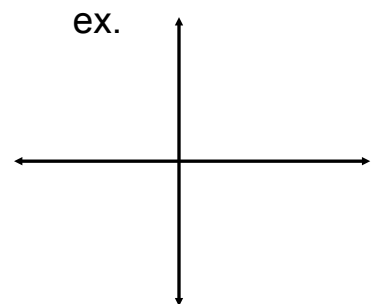
* When a quadratic function is in general form we can identify the following properties.

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ex. $y = 2x^2 - 12x + 25$

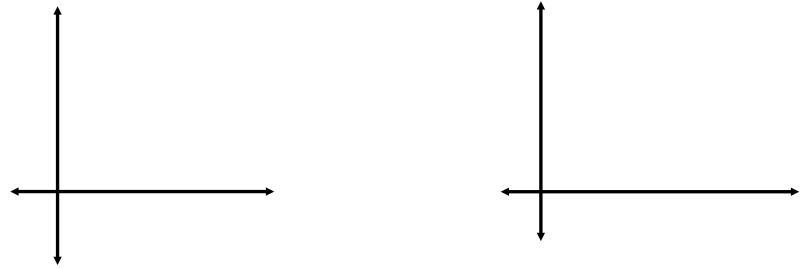* the ⬚ of a function is the set of all possible ⬚ values
* the ⬚ of a function is the set of all possible ⬚ values

ex.

Generally, the domain of a quadratic function is:

⬚
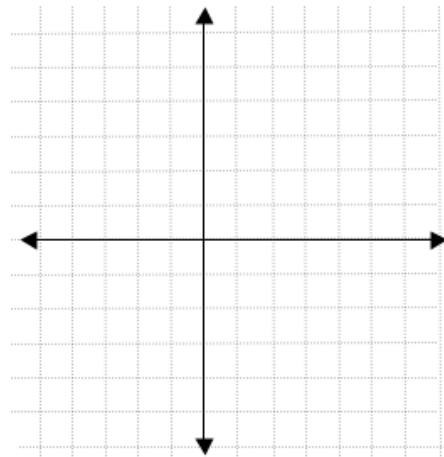
However, in "real-world" models, we often have to restrict the domain to suite the problem.

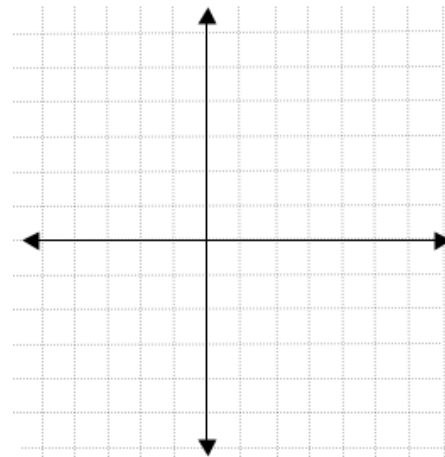* The range of a function depends on its direction of opening.

* As with quadratic functions in vertex form, the number of [____] depends on the [_____] and the [_____] of its vertex.

ex. $y = x^2 - 6x + 4$ $y = x^2, - 2x + 3$

* With a graphing calculator, we can graph any function...

Homefun: pg. 174 #1-5, 7-10, 12, 15, 18, 20, 23