

# Vertex Form of a Quadratic Function

$$f(x) = \pm a(x - h)^2 + k$$



Vertex:

Transformations based on \_\_\_\_\_.

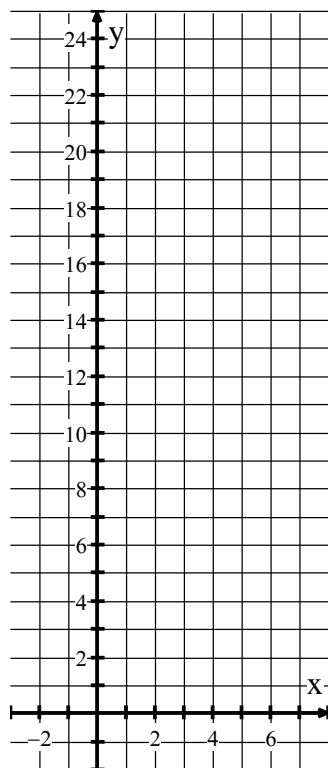
Line of Symmetry:

|      |    |    |    |    |   |   |   |   |   |
|------|----|----|----|----|---|---|---|---|---|
| x    | -4 | -3 | -2 | -1 | 0 | 1 | 2 | 3 | 4 |
| f(x) |    |    |    |    |   |   |   |   |   |

Example:

$$f(x) = 2(x - 3)^2 + 4$$

Example:  $f(x) = -\frac{1}{3}(x + 2)^2 - 1$

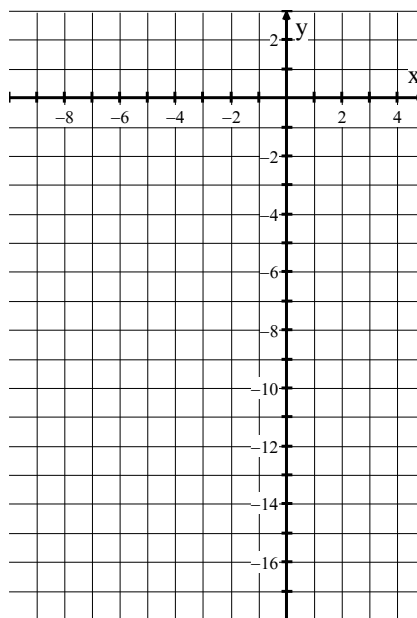


Vertex:

$|a| =$

Orientation:

Line of Symmetry:



Vertex:

$|a| =$

Orientation:

Line of Symmetry: