Name: $\qquad$ Date: $\qquad$

| Learning Goal 3.1 | Given a quadratic function, identify the <br> transformations that graph has undergone from the <br> standard graph of $y=x^{2}$. |
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## Quadratic Function

Graph the function $f(x)=-x^{2}$.
Table of Values:

| $x$ | $y$ |
| :---: | :---: |
| -2 |  |
| -1 |  |
| 0 |  |
| 1 |  |
| 2 |  |

## Vertex

Axis of Symmetry

Parabola


Maximum/Minimum Value

Intercepts

## Domain

Range

## Vertex Form

In your groups, without the use of a graphing calculator, graph these functions.

Graph $\quad f(x)=\frac{1}{2}(x-2)^{2}-4$


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


Graph $f(x)=-2(x+1)^{2}+3$


Graph $\quad f(x)=4(x-4)^{2}-8$


