I can identify the key features of quadratic functions.

## Quadratic Function:

Nonlinear:

Shape:
Axis of Symmetry:

## Vertex:


$y$-intercept:

## Minimum:

- a is
- minimum value is
- range is



## Maximum:

- a is
- minimum value is
- range is


A parabola has a $\qquad$ OR a $\qquad$ , $\qquad$ !!!

I can identify the key features of quadratic functions.
Identify characteristics from the graph
Find the vertex, equation for the axis of symmetry and the y-intercept.


## Identify characteristics from the function.

Find the vertex, equation for the axis of symmetry and the y-intercept.

| $g(x)=2 x^{2}+4 x-3$ | Vertex: |
| :--- | :--- |
|  | Axis of symmetry: |
| $y=-x^{2}+6 x+4$ | Vertex: |
|  | Axis of symmetry: |
|  | $y$-intercept: |

Identify maximum and minimum values from the function.

| $\mathrm{f}(\mathrm{x})=-2 \mathrm{x}^{2}-4 \mathrm{x}+6$ | $\mathrm{~g}(\mathrm{x})=2 \mathrm{x}^{2}-4 \mathrm{x}-1$ |
| :--- | :--- |
| a. Does it have a maximum or minimum value? | a. Does it have a maximum or minimum value? |
| b. What is the minimum or maximum value? | b. What is the minimum or maximum value? |
| c. State the domain and range. |  |
|  |  |
|  |  |

I can identify the key features of quadratic functions.

