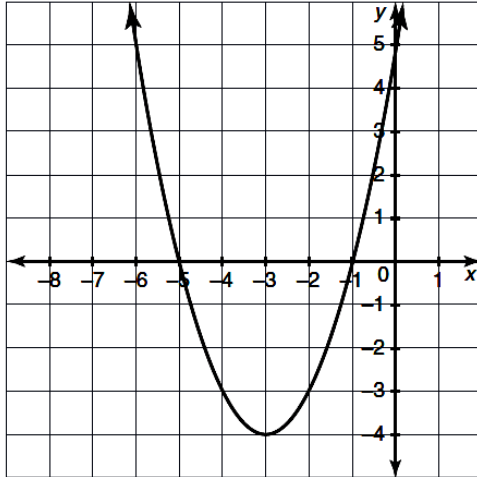


Day 3 - Characteristics of Quadratic Functions

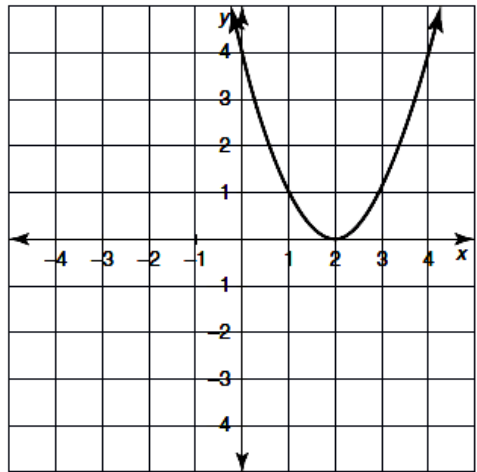
Identify all of the characteristics listed for the following graphs.

1.



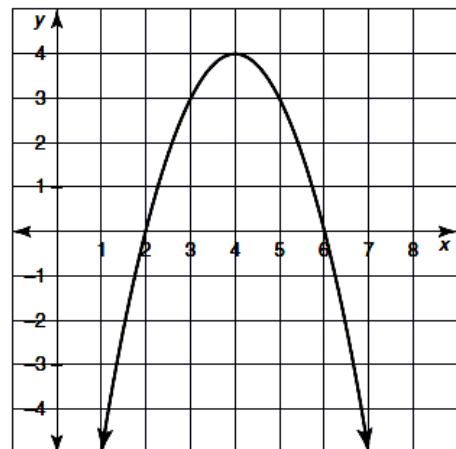
Domain: _____	Range: _____
Vertex: _____	Axis of Sym. _____
Y-Intercept: _____	Zeroes: _____
Extrema: _____	Max/Min Value: _____
Int of Inc: _____	Int of Dec: _____
Positive: _____	Negative: _____
End Behavior: As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____. As $x \rightarrow \infty$, $f(x) \rightarrow$ _____	

2.



Domain: _____	Range: _____
Vertex: _____	Axis of Sym. _____
Y-Intercept: _____	Zeroes: _____
Extrema: _____	Max/Min Value: _____
Int of Inc: _____	Int of Dec: _____
Positive: _____	Negative: _____
End Behavior: As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____. As $x \rightarrow \infty$, $f(x) \rightarrow$ _____	

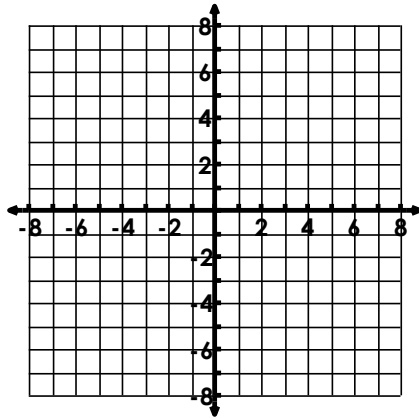
3.



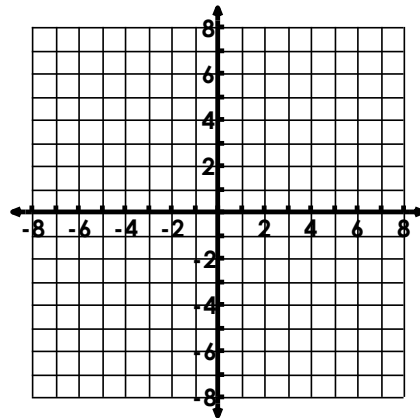
Domain: _____	Range: _____
Vertex: _____	Axis of Sym. _____
Y-Intercept: _____	Zeroes: _____
Extrema: _____	Max/Min Value: _____
Int of Inc: _____	Int of Dec: _____
Positive: _____	Negative: _____
End Behavior: As $x \rightarrow -\infty$, $f(x) \rightarrow$ _____. As $x \rightarrow \infty$, $f(x) \rightarrow$ _____	

Problems 4 – 9: Use the given description to create a rough sketch of a quadratic function. Your graphs might look different than mine, but they must meet the characteristic described below. Start by placing your characteristics on the graph and create the sketch after that.

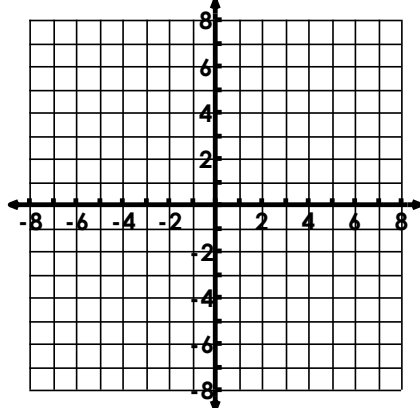
4. Parabola that opens up and has a y-intercept of $(0, 5)$.



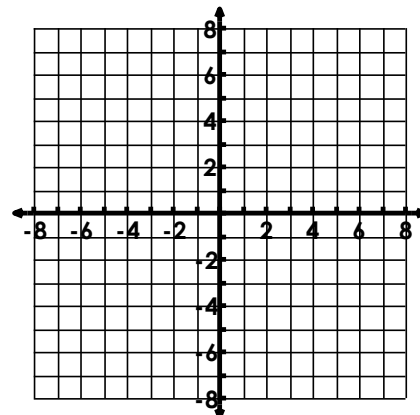
5. Parabola that opens down and has x-intercepts of 3 and -1.



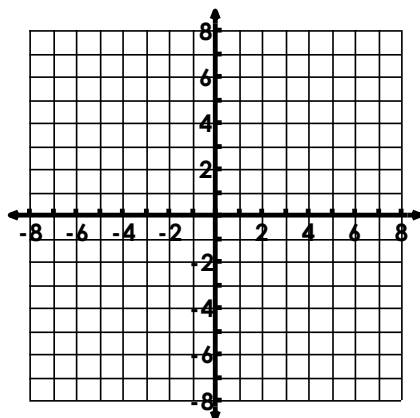
6. Parabola with end behavior that approaches $-\infty$ and has a vertex of $(-3, 6)$.



7. Parabola with a negative part of the graph between $-2 \leq x \leq 2$.



8. Parabola with a maximum of 3 and zeros of 0 and 4.



9. Parabola with an axis of symmetry of $x = -1$ and a range of $y \geq -5$.

