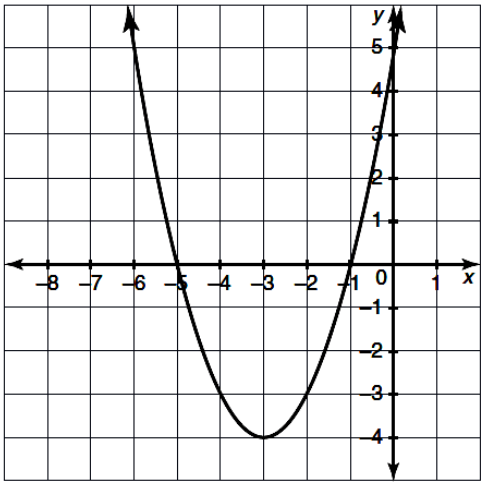
Day 3 - Characteristics of Quadratic Functions Name:_____

Practice Assignment Date:_____ Block:_____

Identify all of the characteristics listed for the following graphs.

1.



Domain: _____ **Range:** _____

Vertex: _____ **Axis of Sym.**_____

Y-Intercept: _____ **Zeroes:** _____

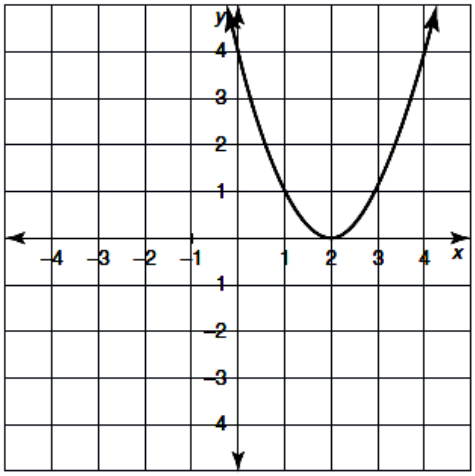
Extrema: _____ **Max/Min Value:** _____

Int of Inc: _____ **Int of Dec:** _____

Positive: _____ **Negative:** _____

End Behavior: As x → -∞, f(x) → _____. As x → ∞, f(x) →_____

2.



Domain: _____ **Range:** _____

Vertex: _____ **Axis of Sym.**_____

Y-Intercept: _____ **Zeroes:** _____

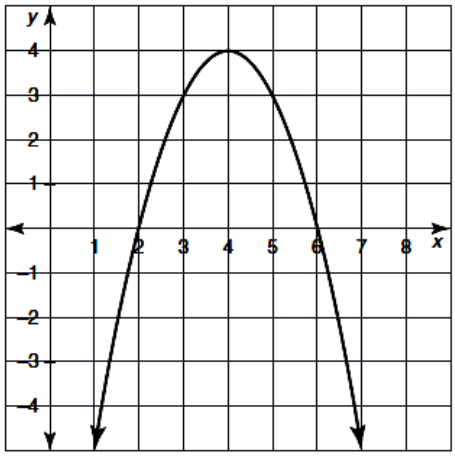
Extrema: _____ **Max/Min Value:** _____

Int of Inc: _____ **Int of Dec:** _____

Positive: _____ **Negative:** _____

End Behavior: As x → -∞, f(x) → _____. As x → ∞, f(x) →_____

3.



Domain: _____ **Range:** _____

Vertex: _____ **Axis of Sym.**_____

Y-Intercept: _____ **Zeroes:** _____

Extrema: _____ **Max/Min Value:** _____

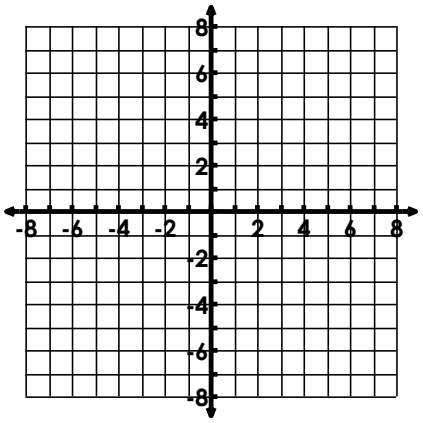
Int of Inc: _____ **Int of Dec:** _____

Positive: _____ **Negative:** _____

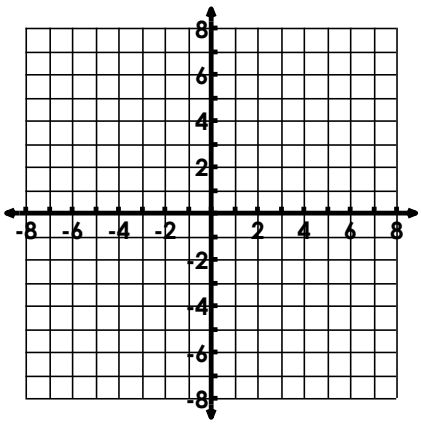
End Behavior: As x → -∞, f(x) → _____. As x → ∞, f(x) →_____

Problems 4 – 9: Use the given description to create a <u>rough sketch</u> 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.

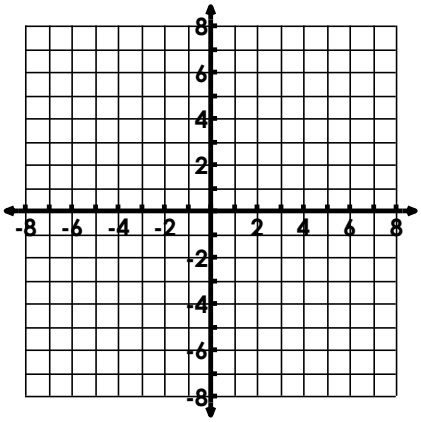
4. Parabola that opens up and has a y-intercept of (0, 5).



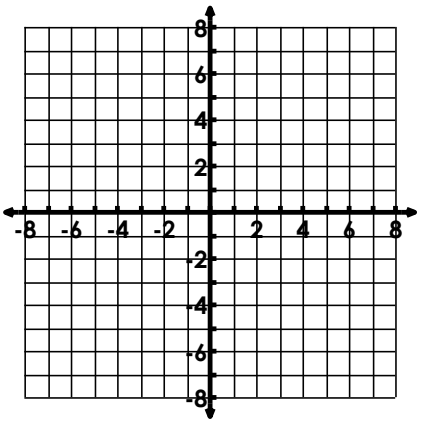
5. Parabola that opens down and has x-intercepts of 3 and -1.



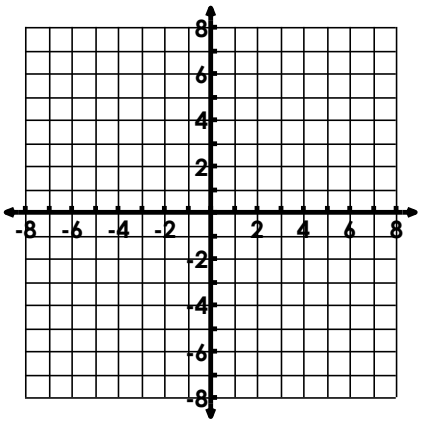
6. Parabola with end behavior that approaches -∞ and has a vertex of (-3, 6).



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



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 ≥ -5.