# Characteristics of Quadratic Functions Practice Worksheet A

**Name**_____ **Date**_____

1. Domain: _____ Range: _____

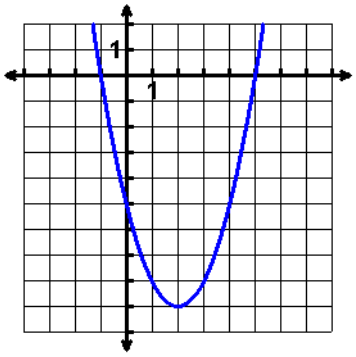
   Vertex: _____ AOS: _____

   x-intercept(s): _____ y-intercept: _____

   Increasing: _____ Decreasing: _____

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

   Rate of Change: $-1 \le x \le 2$ _____ As x→ – ∞, f(x)→_____

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2. Domain: _____ Range: _____

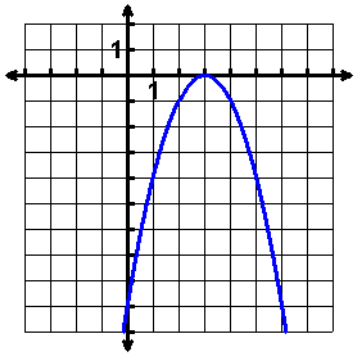
   Vertex: _____ AOS: _____

   x-intercept(s): _____ y-intercept: _____

   Increasing: _____ Decreasing: _____

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

   Rate of Change: $1 \le x \le 3$ _____ As x→ – ∞, f(x)→_____

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3. Domain: _____ Range: _____

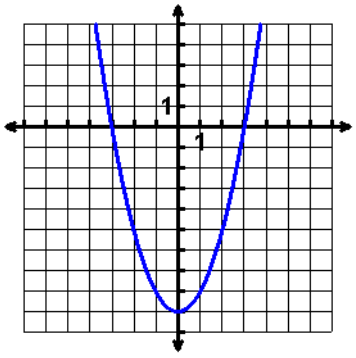
   Vertex: _____ AOS: _____

   x-intercept(s): _____ y-Intercept: _____

   Increasing: _____ Decreasing: _____

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

   Rate of Change: $-3 \le x \le 0$ _____ As x→– ∞, f(x)→_____

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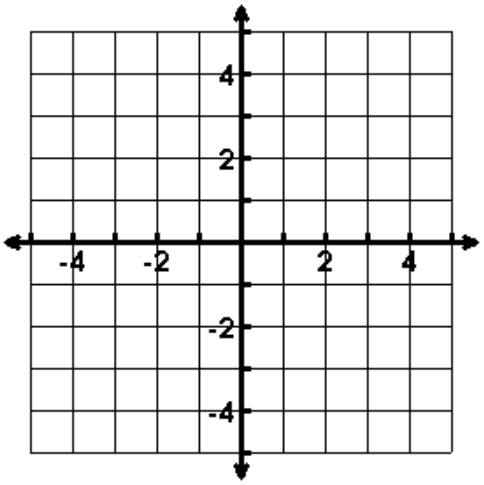
Graph the quadratic function and write the characteristics.

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




Domain_____ Range_____

Vertex_____ AOS_____

Zeros _____ y-intercept_____

Increasing _____ Decreasing_____

Extrema: _____ End Behavior: As $x \to \infty$, $f(x) \to$ _____

Rate of Change: $-2 \le x \le 1$ _____ As $x \to -\infty$, $f(x) \to$ _____

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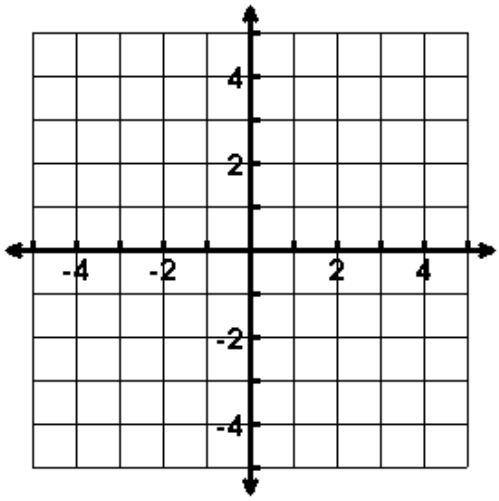
5. $f(x) = x^2 - 4x + 3$




Domain_____ Range_____

Vertex_____ AOS_____

Roots_____ y-intercept_____

Increasing_____ Decreasing_____

Extrema: _____ End Behavior: As $x \to \infty$, $f(x) \to$ ____

Rate of Change: $1 \le x \le 4$ _____ As $x \to -\infty$, $f(x) \to$ ____

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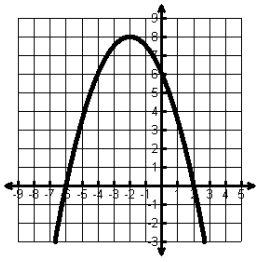
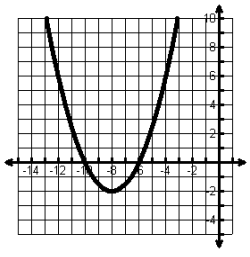
6. Match the quadratic function $f(x)$ to its characteristics:

1. The interval of increase is $(-\infty, -2)$.
2. The range is $-8 \le f(x) < \infty$.
3. The axis of symmetry is located at x = 8.
4. The interval of decrease is $-\infty < x < -8$.

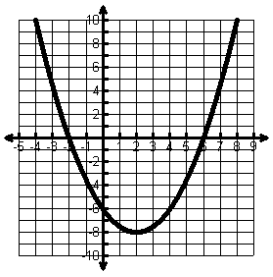
A.



B.



C.



D.