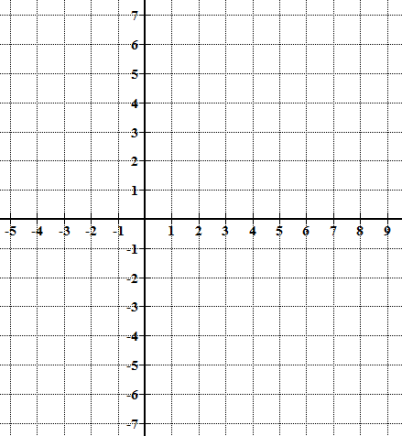
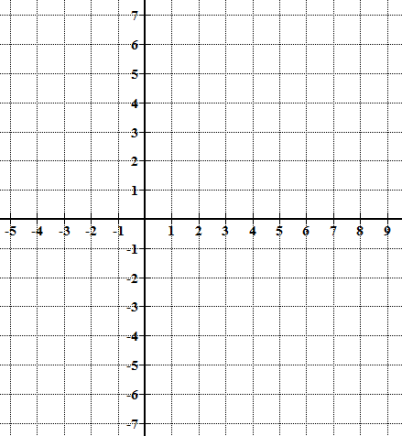
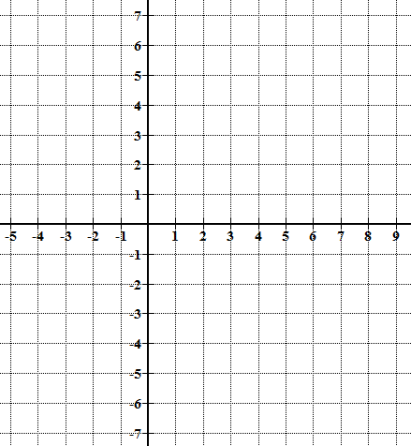
**LT6.1 Graphing Cubic Functions**

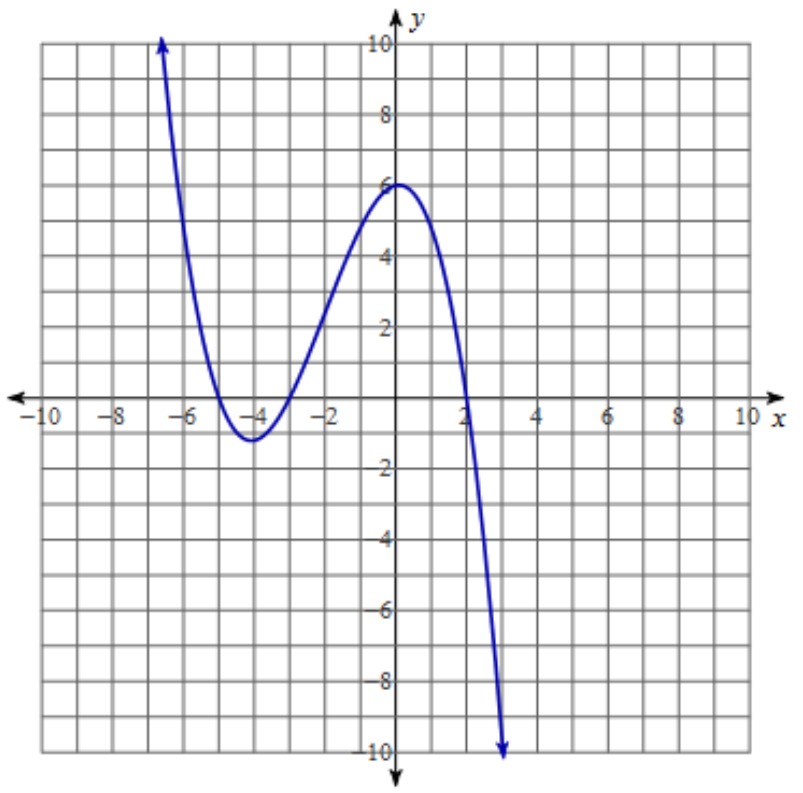
**Problems 1-6: Make a graph and make a table below the graph. Find the x-intercepts.**

**1.** **2.** **3.**



x-intercepts: \_\_\_\_\_\_\_\_\_\_\_ x-intercepts: \_\_\_\_\_\_\_\_\_\_\_\_\_ x-intercepts:\_\_\_\_\_\_\_\_\_\_

**4.** Identify the following significant features of the graph of a cubic function.



Domain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Range \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Relative Maximum (estimate) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Relative Minimum (estimate) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Increasing Interval(s) (estimate) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Decreasing Interval(s) (estimate) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

x-intercept \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

y-intercept \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

End Behavior: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**LT 6.2 Operations with Polynomials**

**Problems 5-7: Simplify the Expression.**

**5.** **6.**

**7.**

**Problems 8-13: Add, Subtract, Multiply, or Divide the Polynomials**

**8**.

**9.**

**10.**  **11.**

**12**. **13.**

**LT 6.3 Solving for Cubic Functions and Polynomial Equations**

**Problems 14-19: Solve by graphing in a graphing calculator. Round to the nearest tenth.**

**14.** **15.**

**16.** **17.**

**Problems 5-6: Find all zeros. Divide the function by the given factor, then solve for x.**

**18.** **19.**

**20.** A construction company is building new homes. The median cost of building these homes can be modeled by the function , where x is the number of years since 1970. In what year was their cost at $120,000?