**Technology Activity: Graphs of Polynomial Functions**

**Activity:**

* Use a graphing calculator to graph each equation listed below.





















* Sketch each graph on a separate index card or sheet of paper. Label the graph with its equation.
* Sort the graphs into groups based on their shapes.

**Discussion Questions:**

1. One form of a Linear Equation is . How are the graphs of the linear equations alike?
2. One form of a Quadratic Equation is . How are the graphs of the quadratic equations alike?
3. How are the graphs of the remaining equations alike? How are they different?
4. Estimate the x-intercept(s) of each graph. Write them on each card.
5. **Make a Conjecture:** Compare the number of x-intercepts of each graph and the greatest exponent found in its equation. What is the relationship?