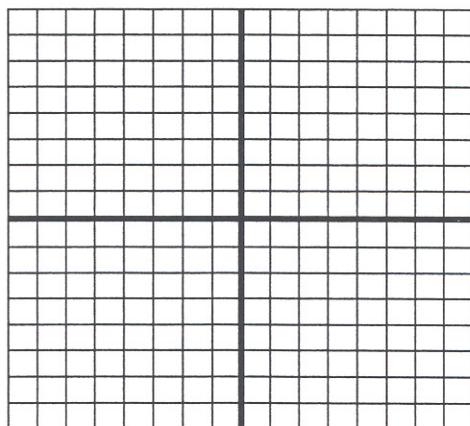


Activity 1: Investigating the Role of a

Sketch a graph of the following using a graphing calculator. Your observations should include some table values.

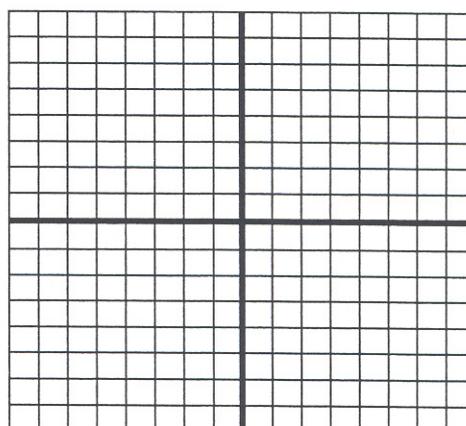
1. Function: $y = x^2$

Observations:



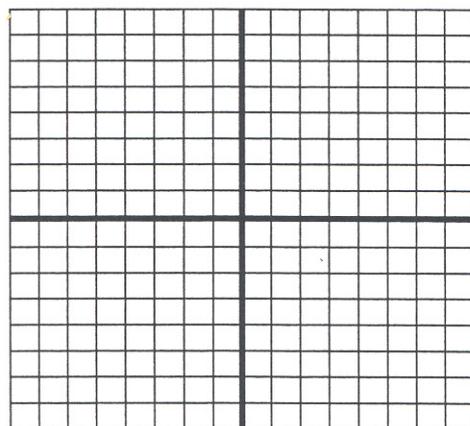
2. $y = 2x^2$, $y = \frac{1}{2}x^2$, $y = 0.2x^2$

Observations:



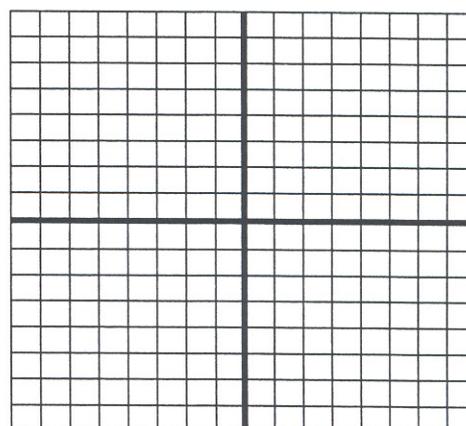
3. $y = 5x^2$, $y = -x^2$

Observations:



4. $y = -\frac{1}{10}x^2$, $y = -25x^2$

Observations:



5. In general, what effects do different values of a have on the graph of $y = ax^2$?