## Vertex Form of Parabola

In this activity we will investigate the vertex form of quadratic equations.

**<u>Step 1</u>**: Record the equation from your card below.

Your equation:\_\_\_\_\_

**<u>Step 2</u>**: Enter the equation into Y1 in the activity center.

**<u>Step 3</u>**: Get into a group with others that have your same vertex. Take your card with you.

**<u>Step 4</u>**: Record your group members' quadratic equations below.

Equation 1:	(r	ewrite you	rs)
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Equation 2:\_\_\_\_\_

Equation 3:\_\_\_\_\_

**<u>Step 5</u>**: Find the vertex for your group's quadratic equations.

(\_\_\_\_\_, \_\_\_\_\_)

**<u>Step 6</u>**: In your group, discuss similarities and differences in the equations above. Record your group findings below.

**<u>Step 7</u>**: Based on your findings, describe how to find a vertex given an equation.

## **Check for Understanding:**

Which graph shows a function  $y = x^2 + c$  when c < -1?

