DEFINITION: A parabola is the set of points that are equal distance from a fixed point (called the **focus)** and a fixed line (called the **directrix**).

Examine the previous parabolas that you have constructed. For the next parabola that you are going to make, change the distance between the focus and the directrix. You can make the distance larger or smaller.

1. Before you construct the new parabola, predict what will happen to the shape of the parabola:

2. Now do it. Change the distance between the focus and the directrix, from your previous constructions and make the new parabola. What do you notice about the shape of the parabola? Why do you think that happens?

3. Are your methods the same as Keoni and Sasha? If they are different, why do both the methods work? If they were the same, can you think of another method to construct the parabola?