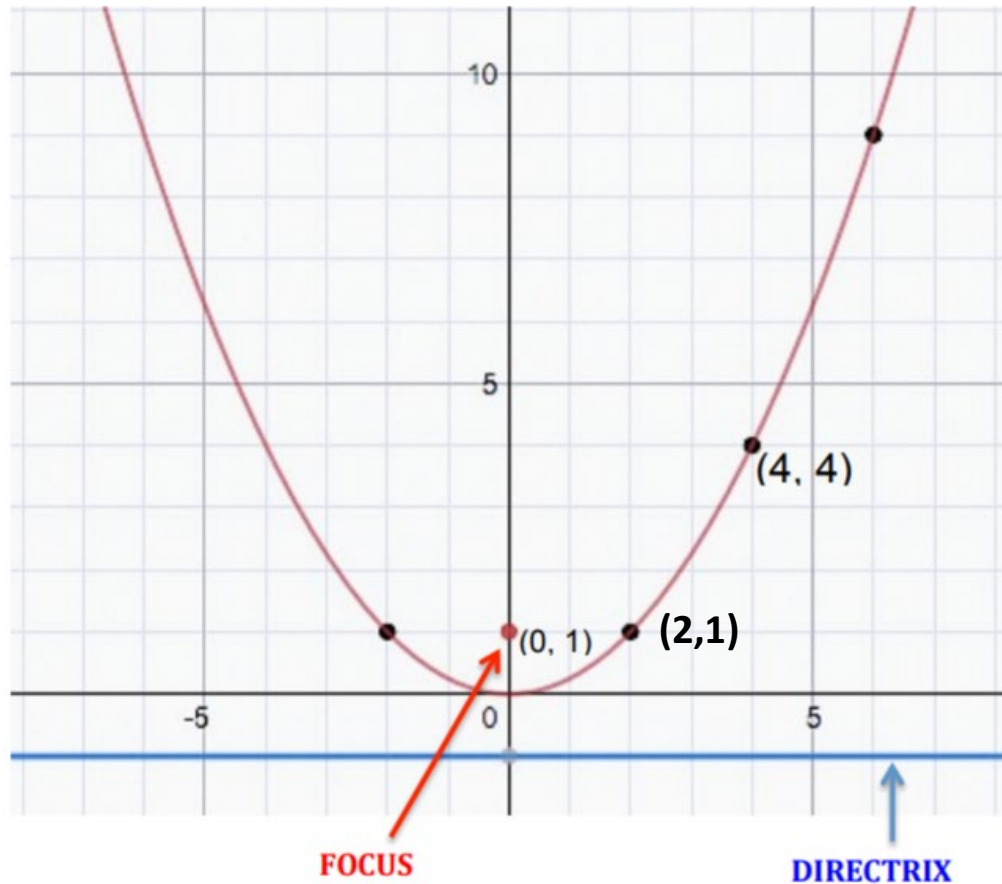


### Activity 1 of Lesson 3: Justify Points on a Parabola

**Task:** Sasha and Keoni were asked to use the definition of a parabola and any other useful tools that they have learned about in math classes to justify why the following two points are on this parabola:  $(2,1)$  and  $(4,4)$ .

**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**).



Solve the task yourself:

1. Justify that  $(2, 1)$  is on the parabola.
2. Justify that  $(4, 4)$  is on the parabola.