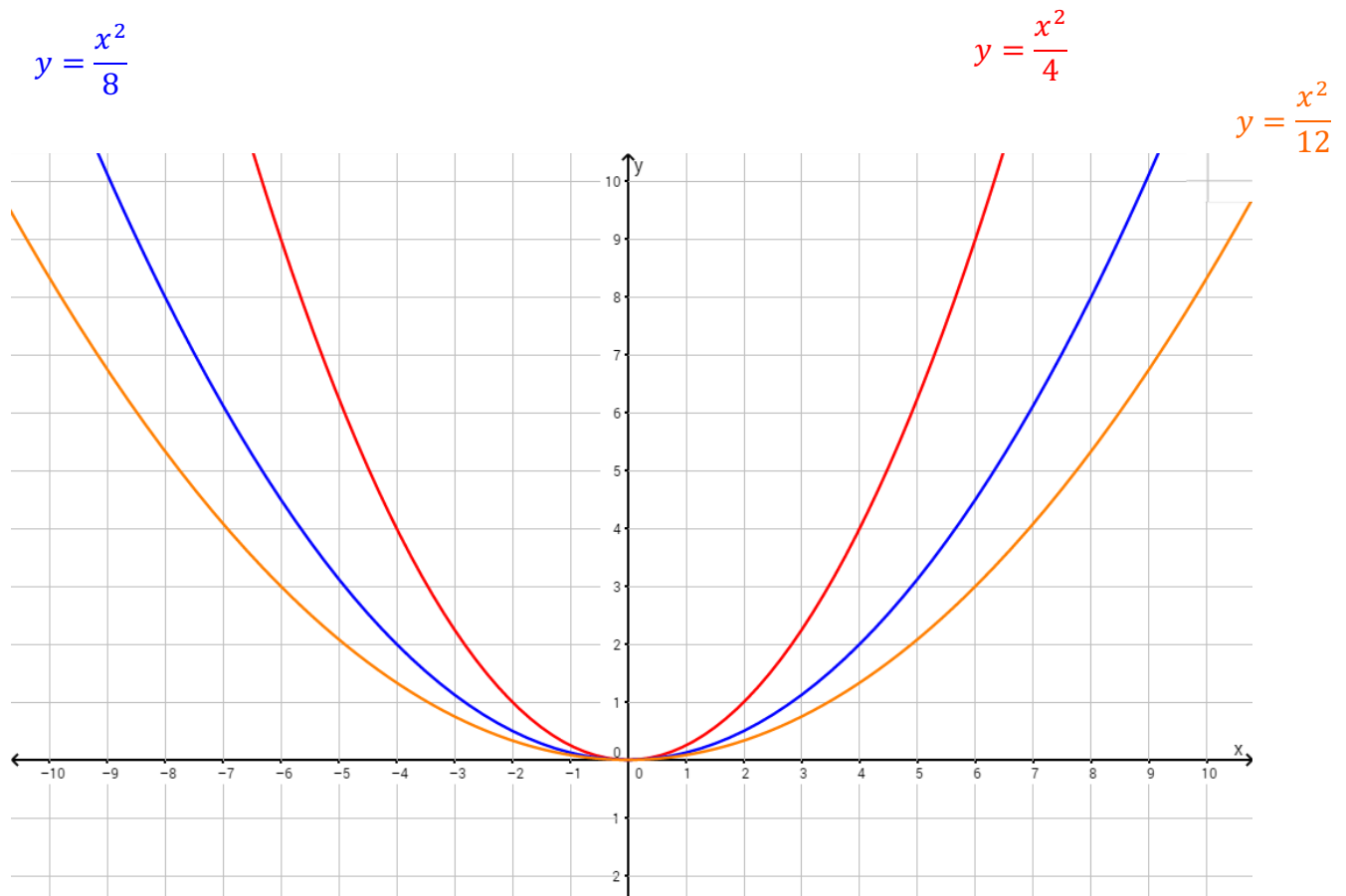


1. The goal of this lesson is to find the general equation for any parabola with a vertex at $(0, 0)$. So far, you have found the parabola with foci at $(0, 1)$, $(0, 2)$ and $(0, 3)$. What do you think that the equation is depending on?
2. What do you notice about the equations? How are they alike and how are they different?
3. How are the focus and the directrix related to the equations? For the three parabolas graphed below, add and label each focus and directrix to the graph. Make a prediction for the equation of a parabola with a focus at $(0,4)$. What about for a parabola with a focus at $(0, 5)$? What about $(0, p)$?



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