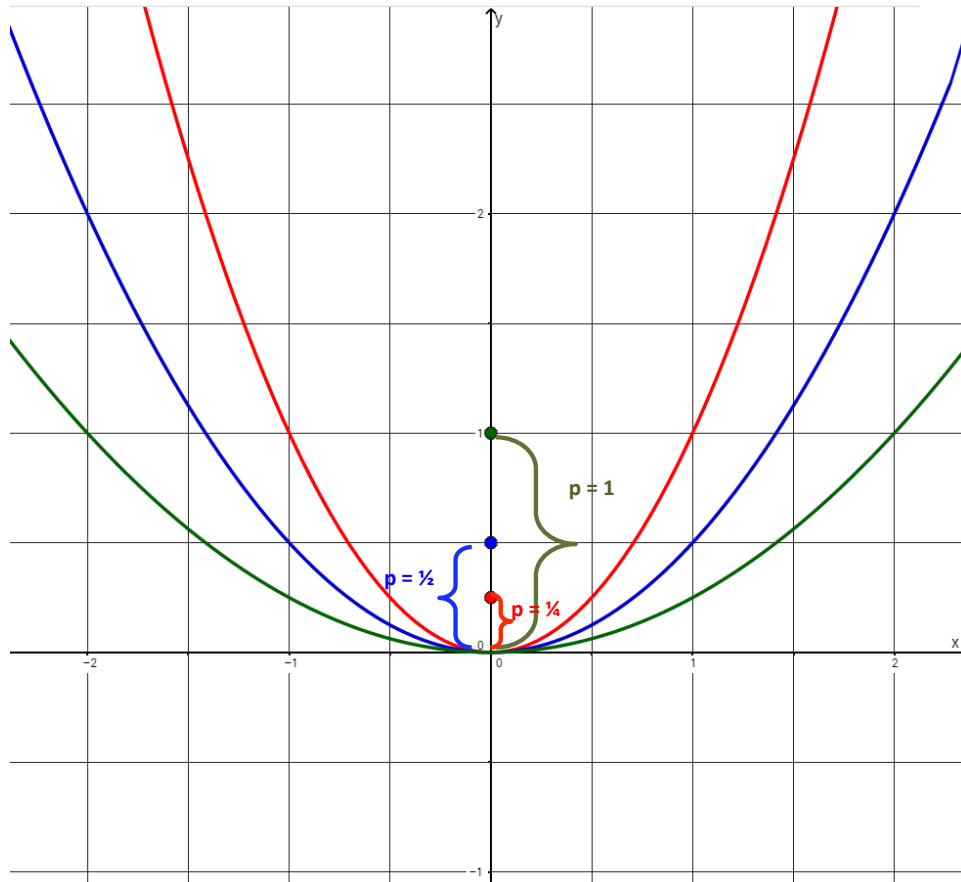


$$\text{General equation for a parabola with a vertex at the origin: } y = \frac{x^2}{4p}$$

Below are the graphs of parabola p values of $\frac{1}{4}$, $\frac{1}{2}$, and 1 .

1. State below your claim for how changing the value of p in the equation affects the shape of the parabola.
2. Add and label the directrix for each parabola. How do you know where to place each directrix?
3. What does it mean for one parabola to be wider than another parabola? How would you provide mathematical evidence that supports your claim?



“Student Worksheet: Lesson 7 Episode 1” by MathTalk is licensed under CC BY-NC-SA 4.0

