

**Activity 2 of Lesson 5:**  
***Derive the Equation of a Parabola with  $p = 3$  and Vertex  $(7, 0)$***

Use the Pythagorean Theorem and the definition of a parabola to derive an equation for the parabola with  **$p = 3$**  and **vertex  $(7, 0)$** . Make note of anything that makes this parabola harder to work with than if the vertex was at the origin.

