

**Activity 4 of Lesson 5:**

***Derive the Equation of a Parabola with an Unknown  $p$ -Value and a Vertex of  $(9, 13)$***

Use the Pythagorean Theorem and the definition of a parabola to derive an equation for a parabola with vertex  $(9, 13)$  and distance  $p$  between vertex and focus.

