

1. The equation below is not in vertex form. In a previous episode you found the geometric information in the equation  $y = x^2 - 4x + 4$  by first re-expressing the equation as  $y = (x - 2)^2$ . How can you re-express the equation below so that you can find the coordinates of the vertex  $(h, k)$  and the  $p$ -value?

$$y = x^2 - 4x + 5$$

2. Graph the parabola described by the equation above. Include the focus and directrix on your graph. Label the coordinates of any points that you plot.

