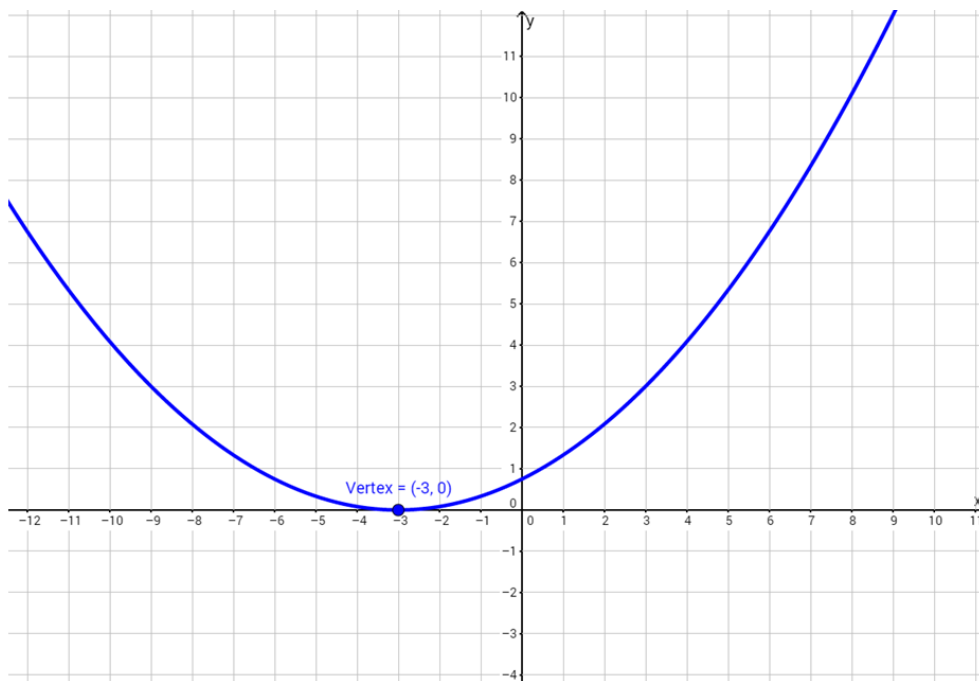1. The *p*-value of the parabola graphed below is 3. Add and label the focus of this parabola to the graph below. Add and label the directrix of the parabola below. Go to the **GeoGebra** applet. Change the *h*-value so that the vertex of the red parabola is at (−3, 0).
   (GeoGebra URL: https://tube.geogebra.org/material/simple/id/1420529)

2. Review your work from Episode 3 when you derived the equation for a parabola with a vertex at (7, 0). Reflecting on your prior work, predict the equation for the parabola below. Explain your prediction.

3. Use the methods from Episode 3 to derive the equation of the parabola below.

4. a. Compare your result with your prediction. What do you notice?

   b. Compare your methods to Keoni and Sasha's methods. What do you notice?

Vertex = (-3, 0)

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