**1.**  Complete the square in order to put the equation into standard form. Identify the center and the radius or explain why the equation does not represent a circle.

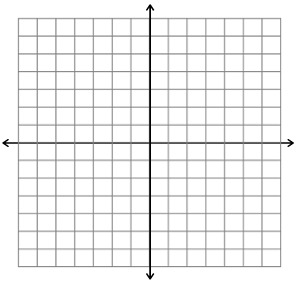


**2.** Find the standard equation of the circle with endpoints of a diameter

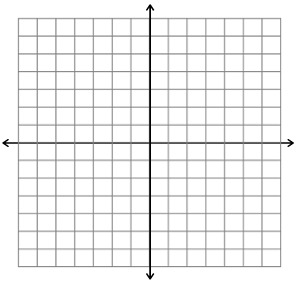
and .

**3.** Find an equation of a parabola satisfying the given: Focus , Vertex

**4.** Find the vertex, the focus, and the directrix of the parabola. Then sketch the parabola. Computer generated graph will not be accepted.

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**5.** Find the vertices and the foci of the ellipse with the equation. Then sketch the ellipse. Computer generated graph will not be accepted.

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**6.** Find an equation of the ellipse satisfying the conditions

Vertices: , Foci:

**7.** Find an equation of the hyperbola with vertices and foci . Then find the asymptotes.

**8.** Find the center, the vertices, the foci, and the asymptotes of the hyperbola. Then sketch the hyperbola and the asymptotes. Computer generated graph will not be accepted.

