

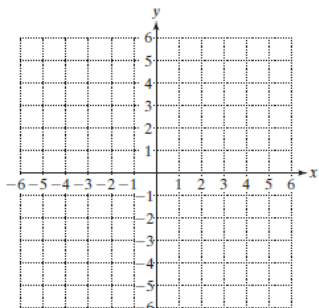
Ellipses and Hyperbolas

... No Answers

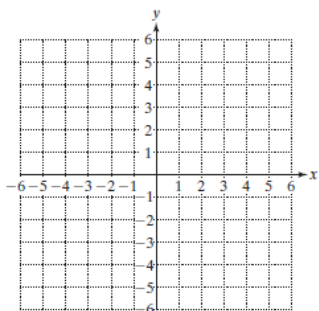
Section 11.3

For Exercises 30–31, identify the x - and y -intercepts. Then graph the ellipse.

30. $\frac{x^2}{9} + \frac{y^2}{25} = 1$

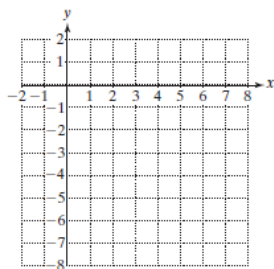


31. $x^2 + 4y^2 = 36$

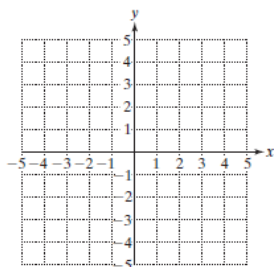


For Exercises 32–33, identify the center of the ellipse and graph the ellipse.

32. $\frac{(x - 5)^2}{4} + \frac{(y + 3)^2}{16} = 1$



33. $\frac{x^2}{25} + \frac{(y - 2)^2}{9} = 1$



For Exercises 34–37, determine whether the transverse axis is horizontal or vertical.

34. $\frac{x^2}{12} - \frac{y^2}{16} = 1$

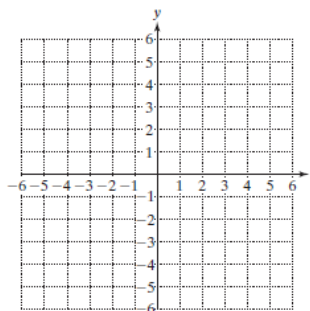
35. $\frac{y^2}{9} - \frac{x^2}{9} = 1$

36. $\frac{y^2}{24} - \frac{x^2}{10} = 1$

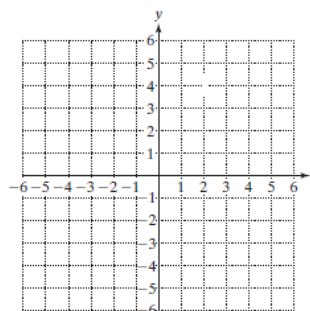
37. $\frac{x^2}{6} - \frac{y^2}{16} = 1$

For Exercises 38–39, graph the hyperbola by first drawing the reference rectangle and the asymptotes. Label the vertices.

38. $\frac{x^2}{4} - y^2 = 1$



39. $y^2 - x^2 = 16$



For Exercises 40–43, identify the equations as representing an ellipse or a hyperbola.

40. $\frac{x^2}{4} - \frac{y^2}{9} = 1$

41. $\frac{x^2}{16} + \frac{y^2}{9} = 1$

42. $\frac{x^2}{4} + \frac{y^2}{1} = 1$

43. $\frac{y^2}{1} - \frac{x^2}{16} = 1$