

For the following exercises, write the equation of an ellipse in standard form, and identify the end points of the major and minor axes as well as the foci.

11. $\frac{x^2}{4} + \frac{y^2}{49} = 1$

12. $\frac{x^2}{100} + \frac{y^2}{64} = 1$

13. $x^2 + 9y^2 = 1$

14. $4x^2 + 16y^2 = 1$

15. $\frac{(x-2)^2}{49} + \frac{(y-4)^2}{25} = 1$

16. $\frac{(x-2)^2}{81} + \frac{(y+1)^2}{16} = 1$

$$17. \frac{(x+5)^2}{4} + \frac{(y-7)^2}{9} = 1$$

$$18. \frac{(x-7)^2}{49} + \frac{(y-7)^2}{49} = 1$$

For the following exercises, find the foci for the given ellipses.

$$27. \frac{(x+3)^2}{25} + \frac{(y+1)^2}{36} = 1$$

$$28. \frac{(x+1)^2}{100} + \frac{(y-2)^2}{4} = 1$$

$$29. x^2 + y^2 = 1$$