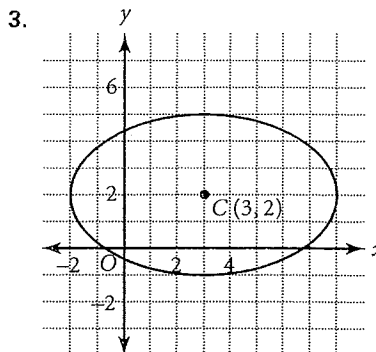
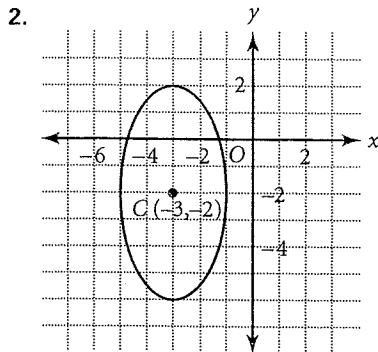
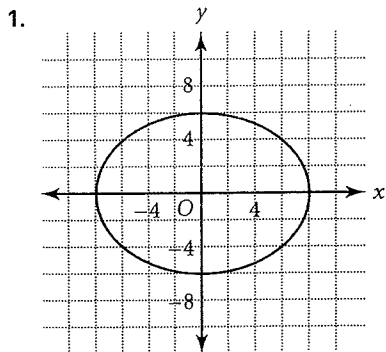




Practice

9.4 Ellipses

Write the standard equation for each ellipse.

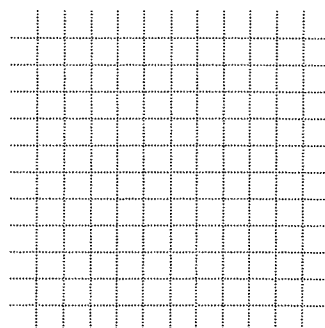
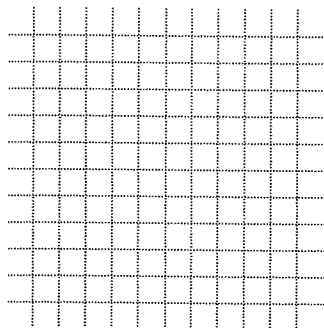
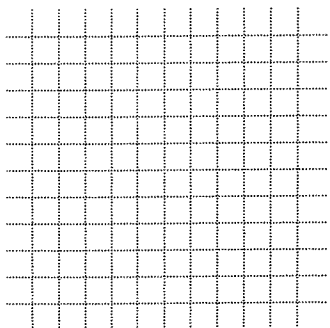


Sketch the graph of each ellipse. Label the center, foci, vertices, and co-vertices.

4. $\frac{x^2}{4} + \frac{y^2}{81} = 1$

5. $\frac{x^2}{49} + \frac{(y-1)^2}{36} = 1$

6. $\frac{(x-4)^2}{9} + \frac{(y+3)^2}{25} = 1$



Write the standard equation for the ellipse with the given characteristics.

7. vertices: $(-25, 0)$ and $(25, 0)$; co-vertices: $(0, -15)$ and $(0, 15)$ _____

8. foci: $(-10, 0)$ and $(10, 0)$; co-vertices: $(0, -3)$, $(0, 3)$ _____

9. co-vertices: $(-20, 0)$ and $(20, 0)$; foci: $(0, -8)$ and $(0, 8)$ _____

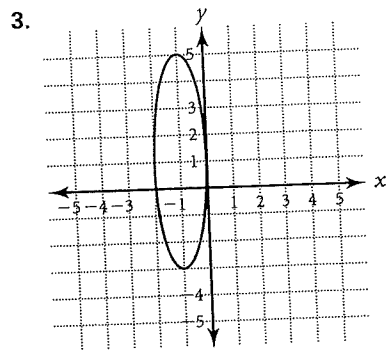
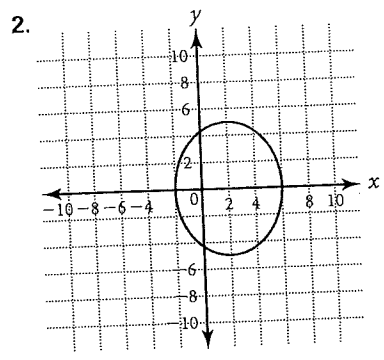
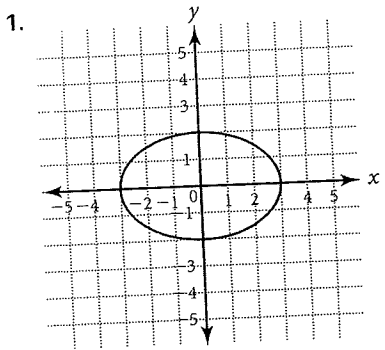
10. An ellipse is defined by $x^2 + 4y^2 + 6x - 27 = 0$. Write the standard equation, and identify the coordinates of the center, vertices, co-vertices, and foci. _____



Practice Masters Level A

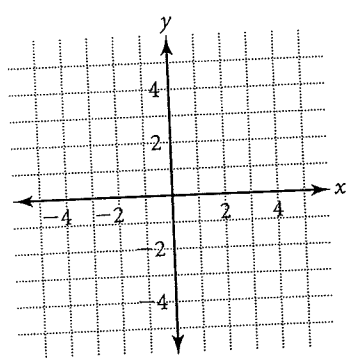
9.4 Ellipses

Write the standard equation for each ellipse.

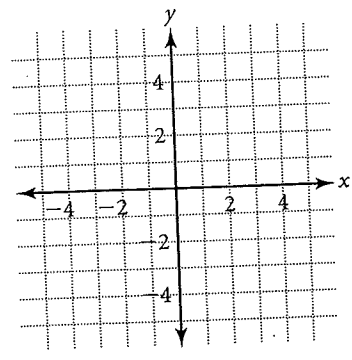


Sketch the graph of each ellipse. Label the center, foci, vertices, and co-vertices.

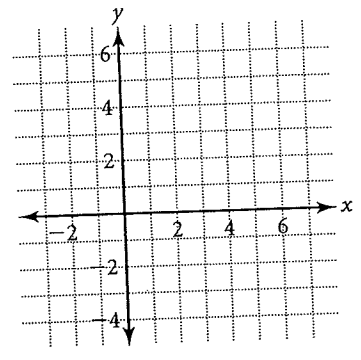
4. $\frac{x^2}{16} + \frac{y^2}{4} = 1$



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



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



Write the standard equation for the ellipse with the given characteristics.

7. vertices: $(-9, 0)$ and $(9, 0)$; co-vertices: $(0, -7)$ and $(0, 7)$ _____

8. vertices: $(0, -12)$ and $(0, 12)$; co-vertices: $(-5, 0)$ and $(5, 0)$ _____

9. foci: $(-10, 0)$ and $(0, 10)$; vertices: $(-12, 0)$ and $(0, 12)$ _____

10. co-vertices: $(-4, 0)$ and $(0, 4)$; foci: $(0, -9)$ and $(0, 9)$ _____

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