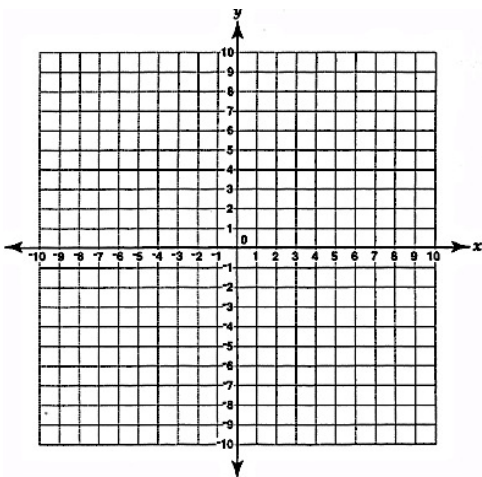


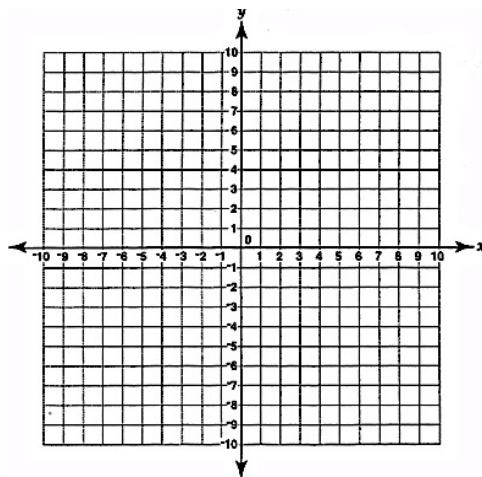
Midpoint Formula	Distance Formula
1. Find the midpoint of the line segment with endpoints at (8, 3) and (-4, 9).	2. Find the distance between (-5, 8) and (4, 3).

State whether the graph of each equation is a parabola, circle, ellipse, or hyperbola. Then graph each equation.

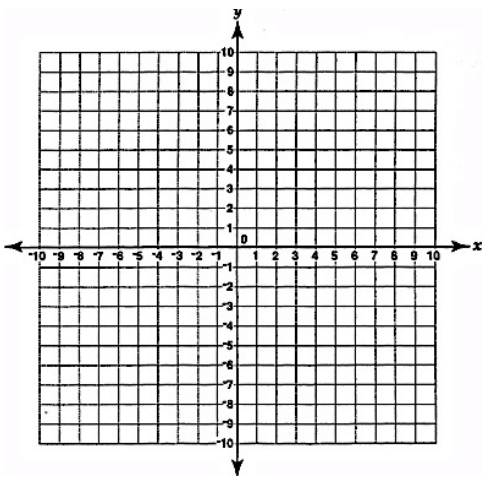
3. $y^2 = 64 - x^2$



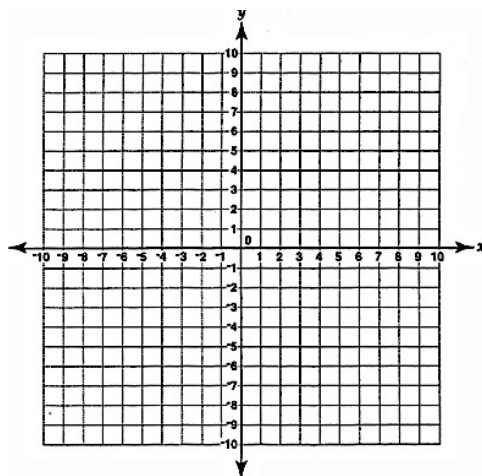
4. $4x^2 + y^2 = 16$



5. $x^2 + 4x - 3 = y$



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



7. A loudspeaker in a school is located at the point $(65, 40)$. The speaker can be heard in a circle with a radius of 100 feet. Write an equation to represent the possible boundary of the loudspeaker sound.

8. Write an equation for the circle that has endpoints of a diameter at $(4, -2)$ and $(-2, -6)$.

9. Find the center and radius of the circle: $x^2 + y^2 + 4x - 2y - 11 = 0$

10. Write an equation of a hyperbola that has vertices at $(-3, -3)$ and $(5, -3)$ and a conjugate axis of length 6 units.

11. Write an equation of an ellipse with center $(5, -2)$, major axis length of 10 units, and minor axis length of 6 units.