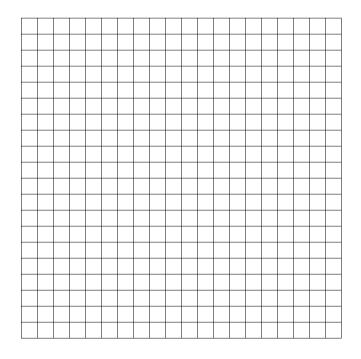
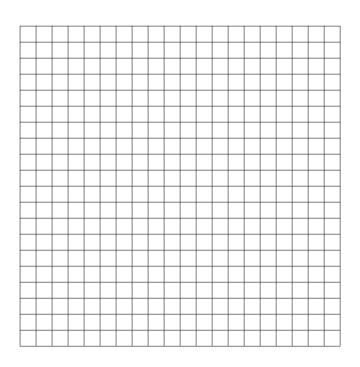
Identify each equation as that of a circle, ellipse, hyperbola, or parabola. Express the equation in standard form and sketch its graph. Show your work neatly organized.

1.
$$4x^2 - 9y^2 - 8x - 54y - 113 = 0$$

2.
$$x^2 + 9y^2 + 2x - 18y + 1 = 0$$

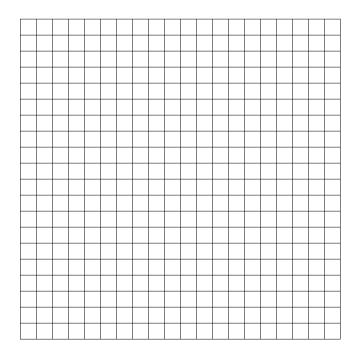


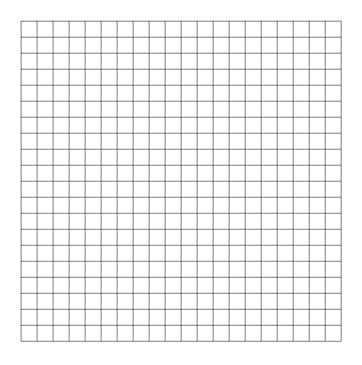


Identify each equation as that of a circle, ellipse, hyperbola, or parabola. Express the equation in standard form and sketch its graph. Show your work neatly organized.

3.
$$x^2 + y^2 - 6x + 8y = 0$$

4.
$$x^2 + 2x + 4y - 11 = 0$$

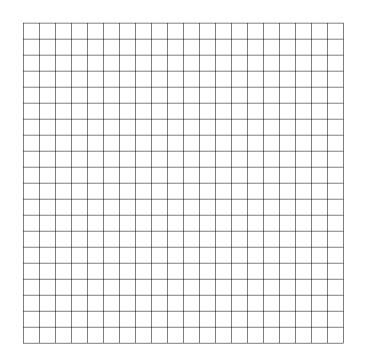


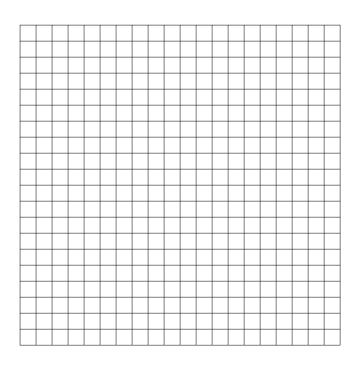


Identify each equation as that of a circle, ellipse, hyperbola, or parabola. Express the equation in standard form and sketch its graph. Show your work neatly organized.

5.
$$25x^2 + 9y^2 + 100x - 54y - 44 = 0$$
 6. $4x^2 + 4y^2 - 4x + 20y + 17 = 0$

6.
$$4x^2 + 4y^2 - 4x + 20y + 17 = 0$$





Identify each equation as that of a circle, ellipse, hyperbola, or parabola. Express the equation in standard form and sketch its graph. Show your work neatly organized.

7.
$$16x^2 - 9y^2 + 64x + 18y + 199 = 0$$
 8. $y^2 - 8x + 4y - 20 = 0$

8.
$$y^2 - 8x + 4y - 20 = 0$$

