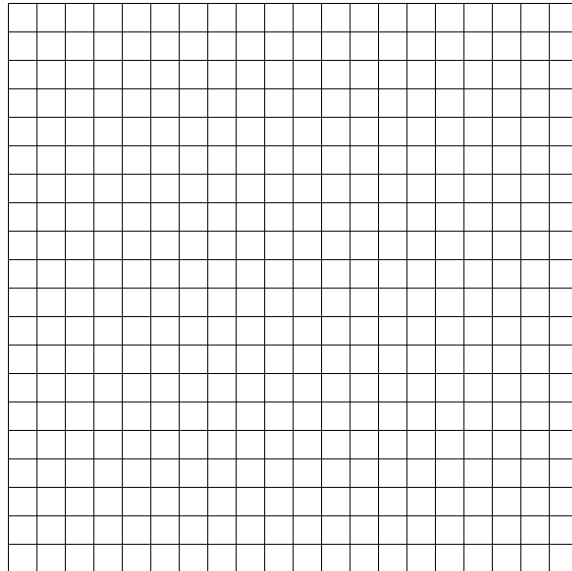
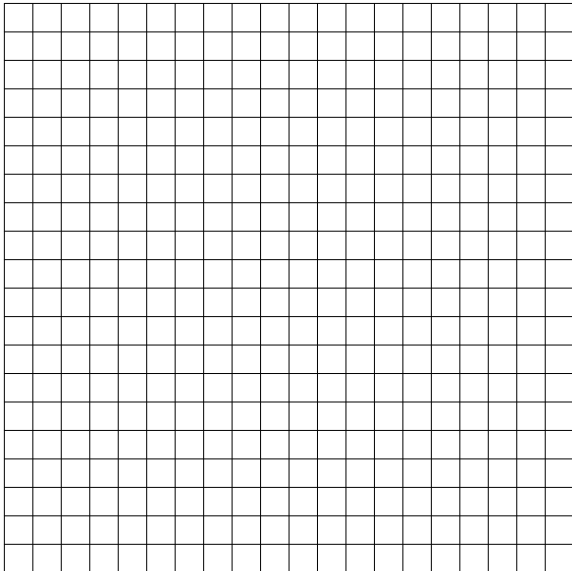


Precalculus Worksheet #1 Chapter 11 page 1

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.

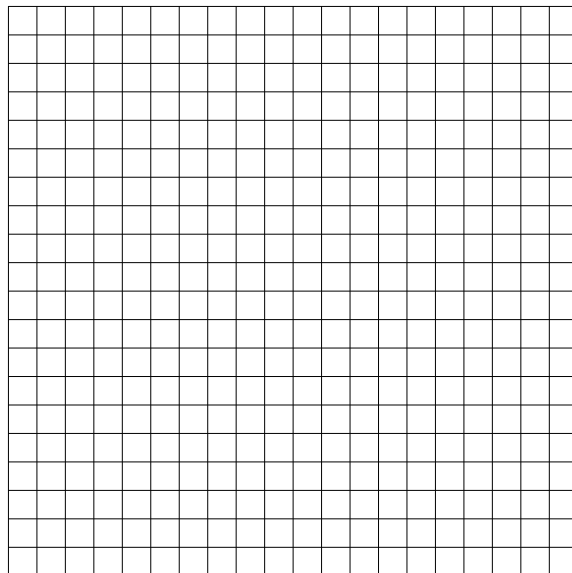
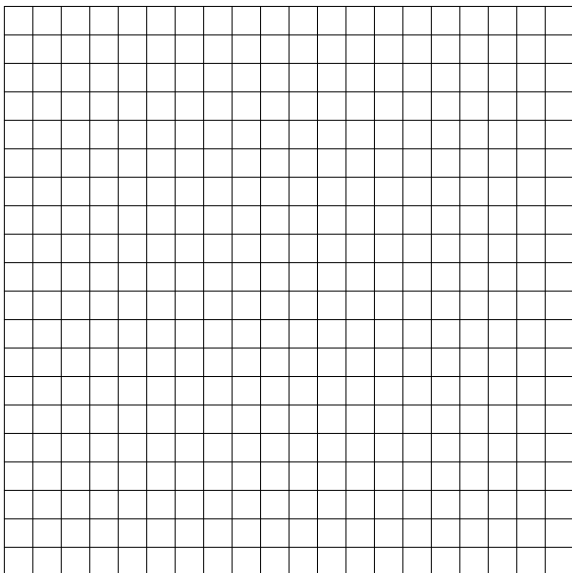
1. $x^2 - 4y^2 - 2x - 24y - 39 = 0$

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



3. $x^2 + y^2 - 6x - 16y + 57 = 0$

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

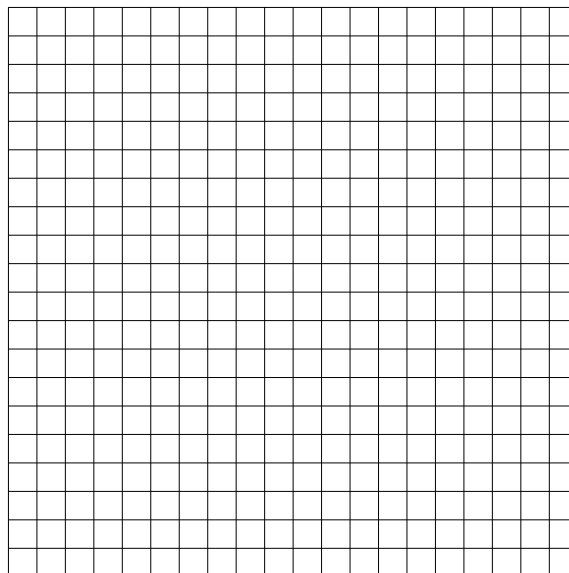
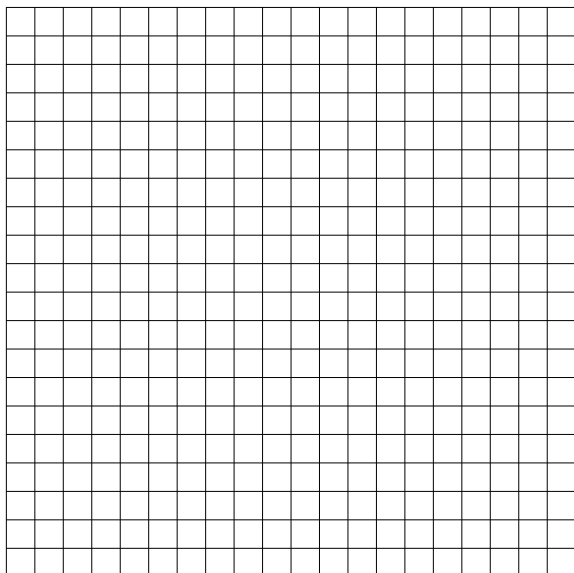


Precalculus Worksheet #1 Chapter 11 page 2

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.

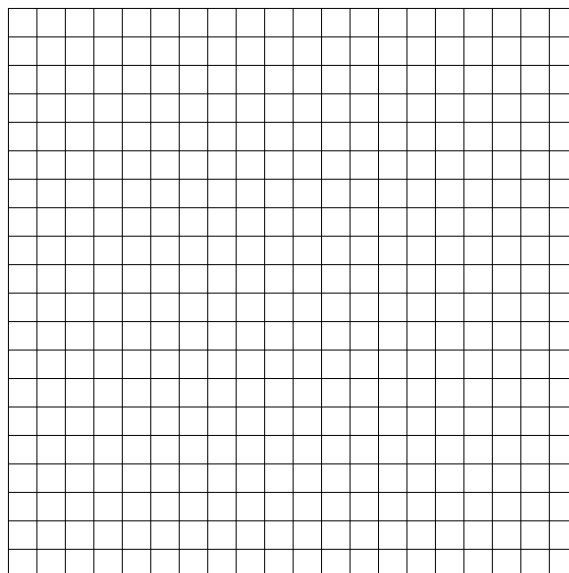
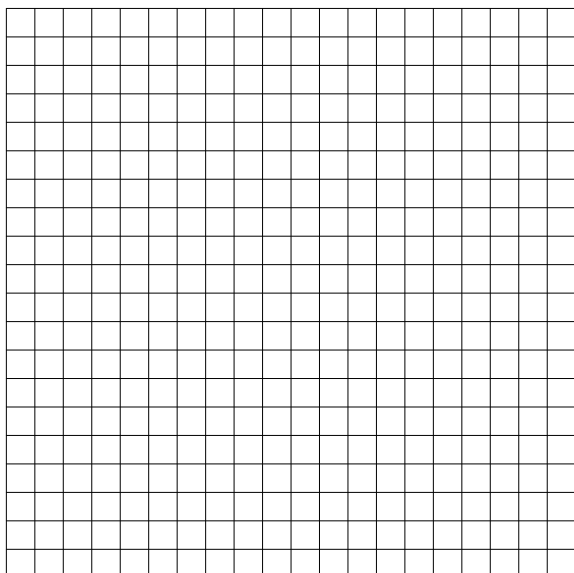
5. $9x^2 + 25y^2 + 36x - 150y + 36 = 0$

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



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

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

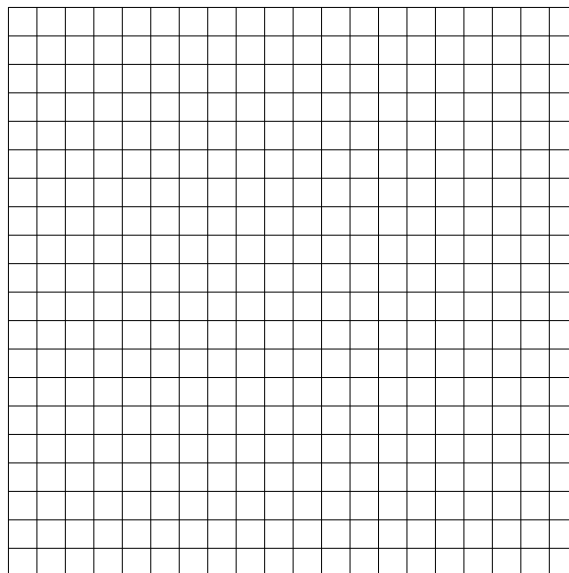
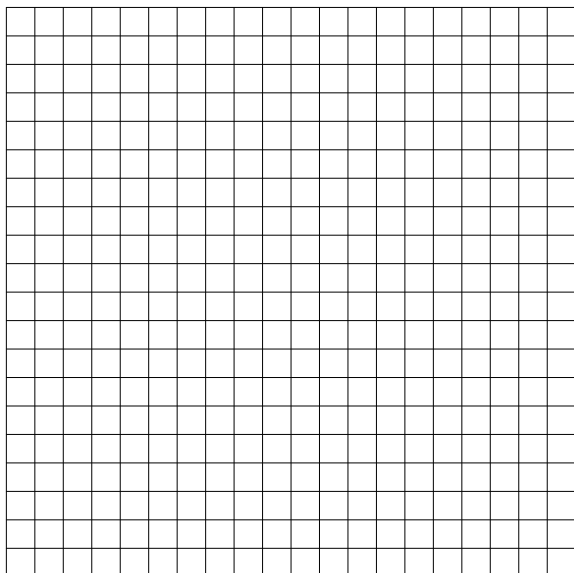


Precalculus Worksheet #1 Chapter 11 page 3

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.

9. $x^2 - y^2 - 4x - 2y - 6 = 0$

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



11. $2y^2 - x - 12y + 23 = 0$

12. $9x^2 - y^2 - 18x - 6y - 9 = 0$

