

Accelerated Geom/Alg2
Conics Review Sheet

Name _____

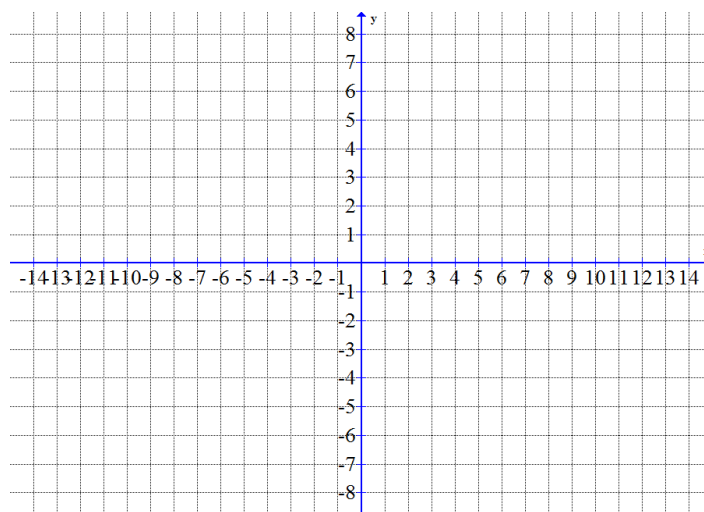
For each conic section:

- Identify the type of conic section
- Convert the conic from general to standard form
- Identify the important pieces
 - Circles (center and radius)
 - Ellipse (center, vertices, co-vertices, and foci)
 - Parabola (vertex, focus, directrix)
 - Hyperbola (center, vertices, co-vertices, and foci)
- Graph the conic section

1. $9x^2 + 4y^2 + 36x - 24y + 36 = 0$

Conic: _____

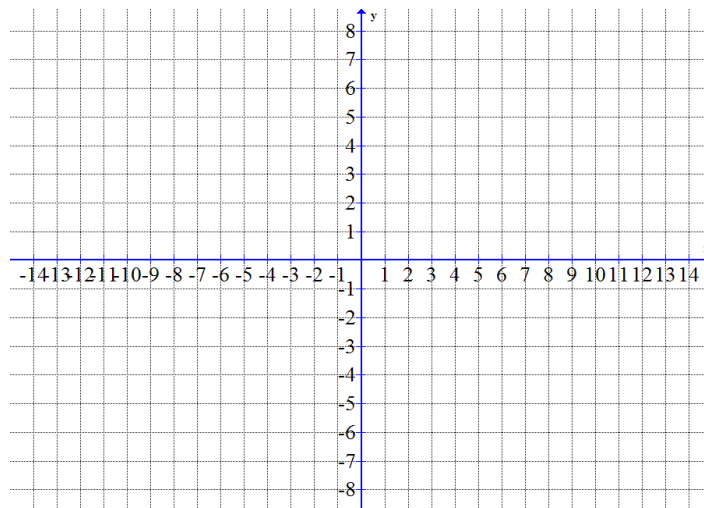
Standard Form: _____



2. $x^2 + y^2 + 10x - 11 = 0$

Conic: _____

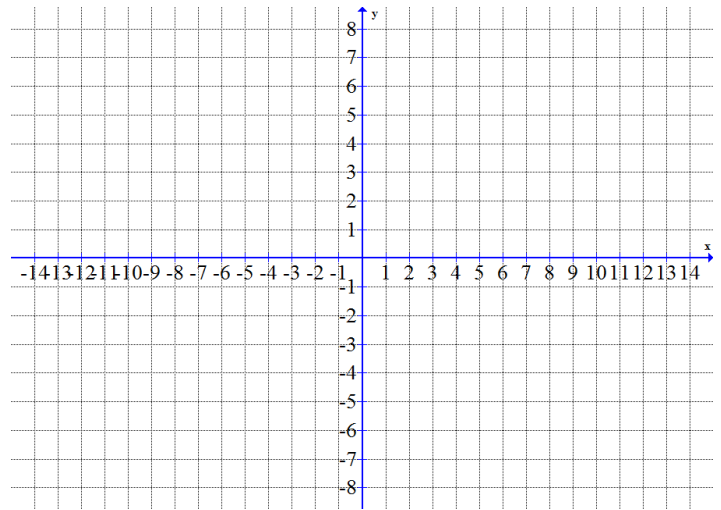
Standard Form: _____



3. $y^2 + 4x - 12y + 44 = 0$

Conic: _____

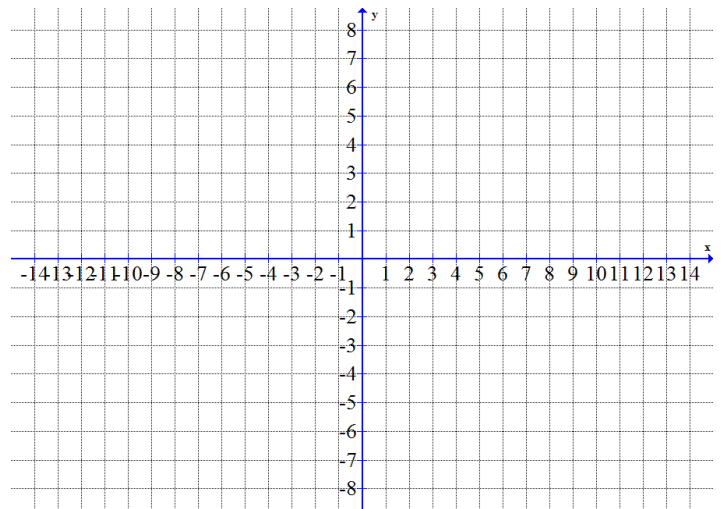
Standard Form: _____



4. $-25x^2 + 16y^2 - 450x - 2425 = 0$

Conic: _____

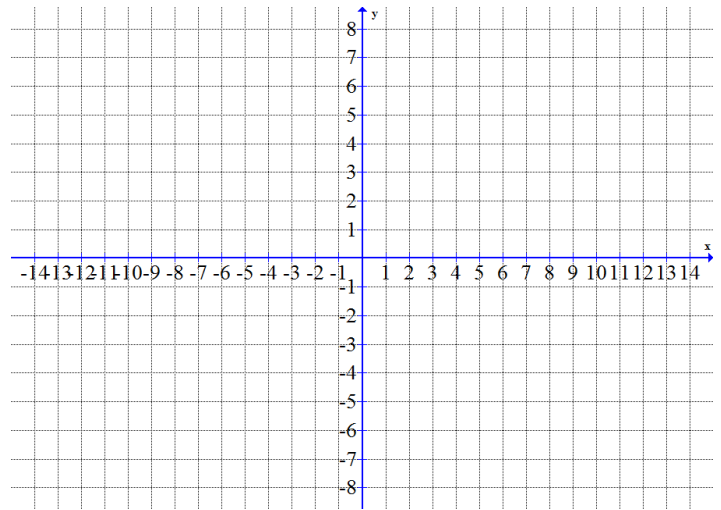
Standard Form: _____



5. $-x^2 + 6x - 12y + 39 = 0$

Conic: _____

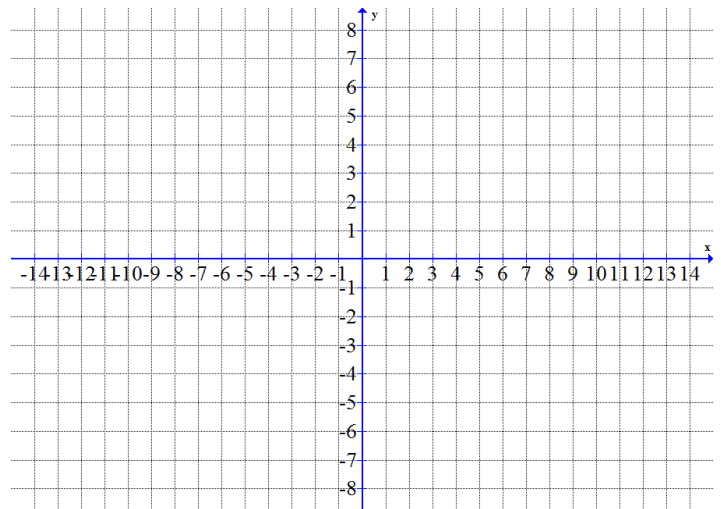
Standard Form: _____



6. $4x^2 + 36y^2 + 8x - 288y + 436 = 0$

Conic: _____

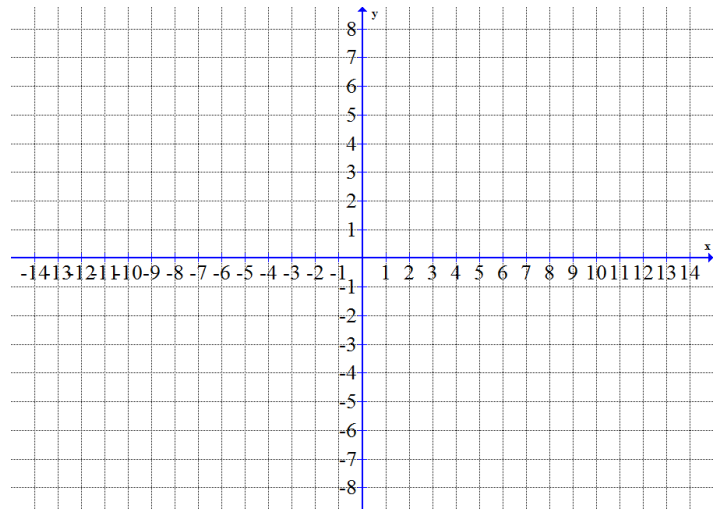
Standard Form: _____



$$7. x^2 - 4y^2 + 4x + 24y - 36 = 0$$

Conic: _____

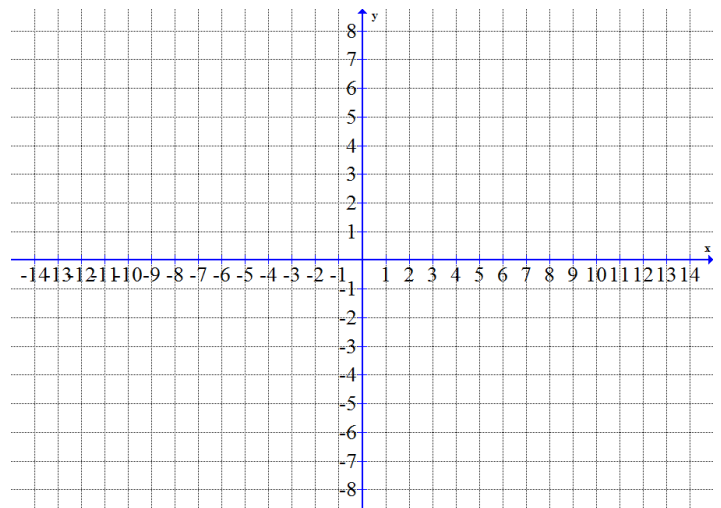
Standard Form: _____



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

Conic: _____

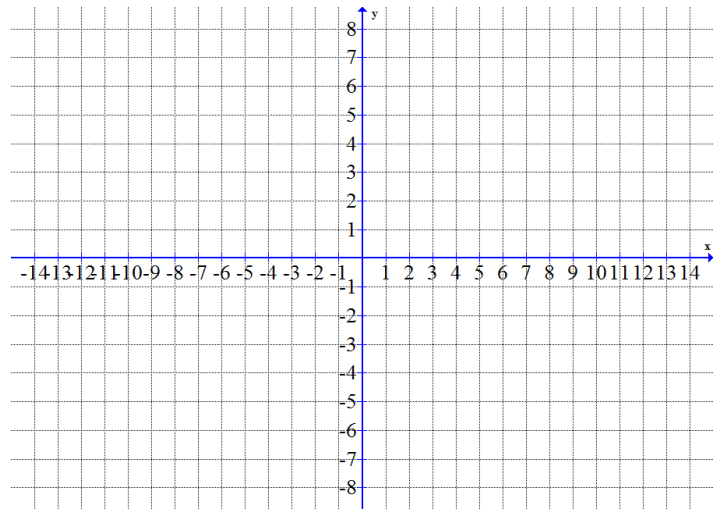
Standard Form: _____



9. $2y^2 - 12x + 4y + 26 = 0$

Conic: _____

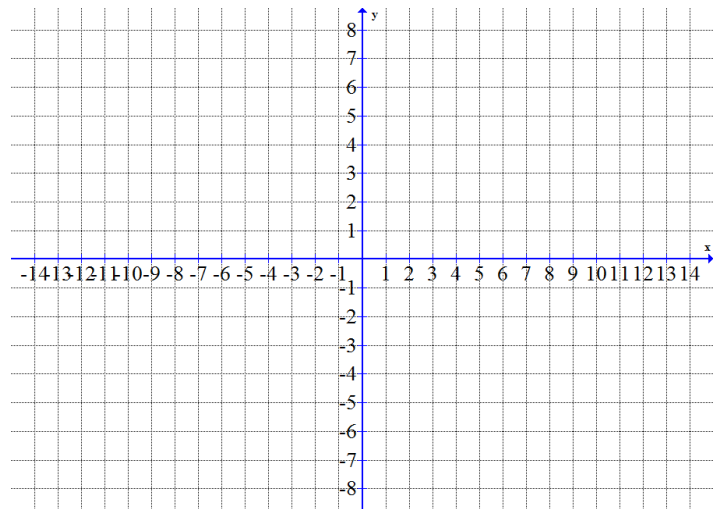
Standard Form: _____



10. $9x^2 + 25y^2 - 54x - 144 = 0$

Conic: _____

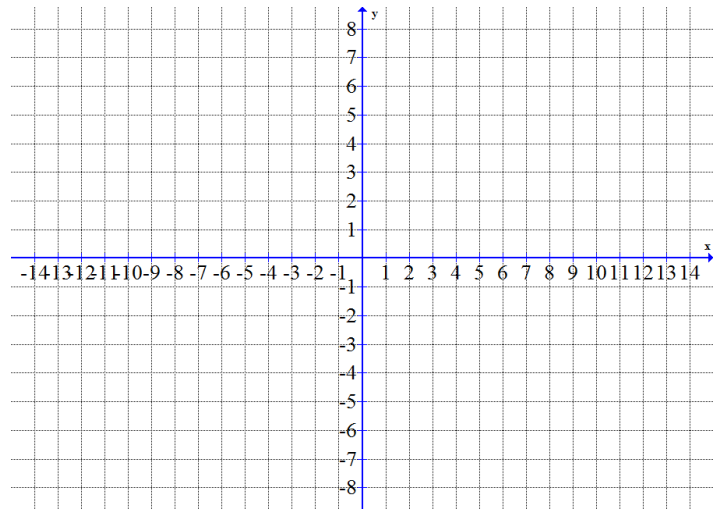
Standard Form: _____



11. $25x^2 - 4y^2 - 32y - 164 = 0$

Conic: _____

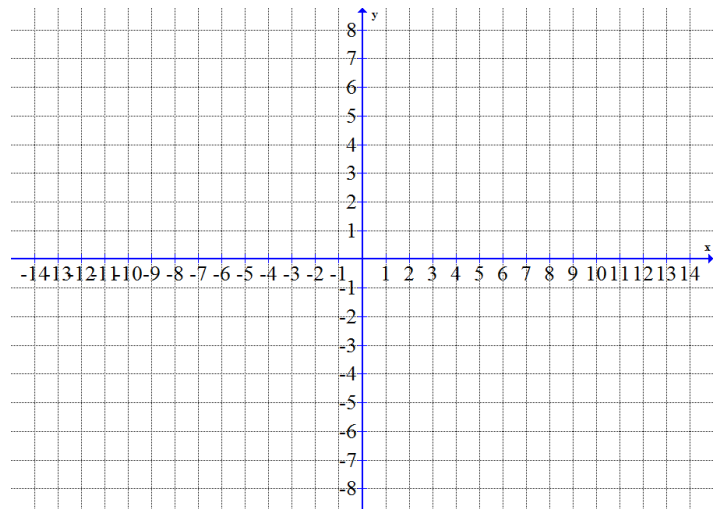
Standard Form: _____



12. $-9x^2 + 16y^2 + 90x + 64y - 305 = 0$

Conic: _____

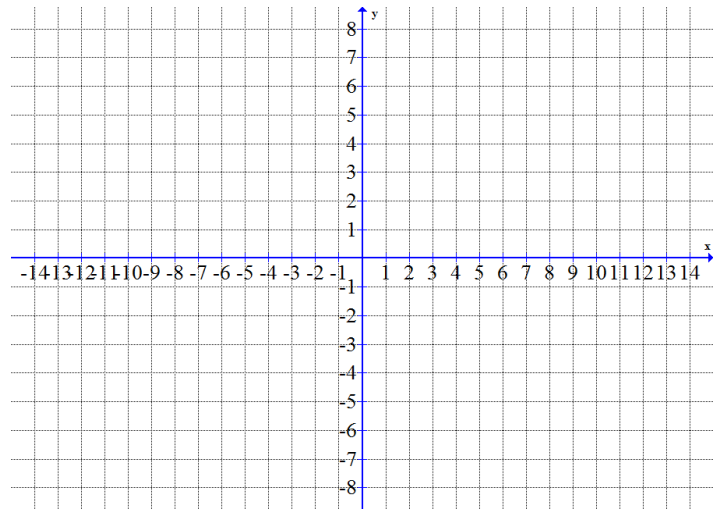
Standard Form: _____



13. $x^2 + 8x - 8y + 32 = 0$

Conic: _____

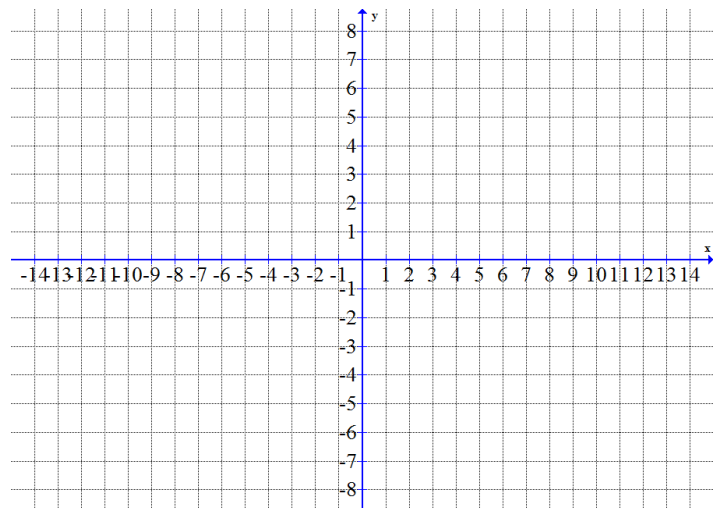
Standard Form: _____



14. $49x^2 + y^2 + 12y - 13 = 0$

Conic: _____

Standard Form: _____



Write the equation of the conic with the given characteristics. Make a rough sketch to help you.

15. Parabola with vertex $(1, -3)$ and focus $(1, 0)$

16. Parabola with focus $(-2, 4)$ and directrix $x = 1$

17. Circle with center $(9, -11)$ and radius 8

18. Ellipse with vertices $(-4, 5)$ and $(6, 5)$ and co-vertices $(1, 7)$ and $(1, 3)$

19. Ellipse with foci $(-2, -1-2\sqrt{2})$ and $(-2, -1+2\sqrt{2})$ and co-vertices $(-1, -1)$ and $(-3, -1)$

20. Hyperbola with vertices $(-3, 10)$ and $(-3, 0)$ and foci $(-3, 5+\sqrt{41})$ and $(-3, 5-\sqrt{41})$

21. Hyperbola with vertices $(0, 5)$ and $(8, 5)$ and co-vertices $(4, 6)$ and $(4, 4)$