
Completing the Square with Conics

Complete the square to find standard form of the conic section. Identify the conic section.

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

6. $25x^2 - 16y^2 + 50x - 96y + 281 = 0$

2. $y^2 + 6y - 8x - 31 = 0$

7. $x^2 + 16y^2 - 10x + 96y + 153 = 0$

3. $4x^2 - 25y^2 - 8x - 100y - 196 = 0$

8. $x^2 - 12x + 16y - 28 = 0$

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

9. $x^2 + y^2 + 6x - 4y - 15 = 0$

5. $x^2 + y^2 - 14x + 4y - 11 = 0$

10. $25x^2 - 9y^2 + 200x + 18y + 166 = 0$