

Pre-Calculus
Identification of Conics—WS 1

Name: _____
Period: _____ Date: _____

For each equation, state the kind of conic

1. $5x^2 + 10x + 5y^2 + 20y - 3 = 0$

2. $(x + 3)^2 = -8(y + 1)$

3. $8x^2 - 4y^2 - 16x + 8y + 20 = 0$

4. $5x^2 + 7y^2 + 10x - 14y + 7 = 0$

5. $y^2 + 7x + 3y + 1 = 0$

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

7. $2x^2 + y - x + 5y^2 = 0$

8. $5x^2 + 3x + 4y^2 - 2y + 10 = 0$

9. $7xy = 14$

10. $12x^2 = 2x - 12y^2 + 6y$

11. $4x^2 + 8x - 5y^2 + 15y - 3 = 0$

12. $(x + 3)^2 + 8(y + 1)^2 = 16$

13. $8x^2 + 8y^2 - 16x + 8y + 20 = 0$

14. $5x^2 + 10x - 14y + 7 = 0$

15. $y^2 + 7x + x^2 - 3y + 1 = 0$

16. $x^2 = 3y^2 - y + 2$

17. $2x^2 - x = 5y^2 + 10$

18. $xy = -25$

19. $6x^2 + 9x + 5y^2 - 10y + 20 = 0$

20. $6x^2 = 12x - 6y^2 + 6y$

21. $4x^2 + 8x + 5y^2 + 15y - 3 = 0$

22. $(x + 3)^2 + (y + 1)^2 = 16$

23. $4x^2 + 9y^2 - 8x - 18y - 16 = 0$

24. $x^2 + 10x - 7y^2 + 14y = 7$

25. $y^2 + 6y + 3x + 1 = 0$

26. $x^2 = -x - 3y^2 - y + 2$

27. $2x^2 - x = 10y - 2y^2 + 25$

28. $7x^2 + 14x + 6y^2 - 12y + 20 = 0$

29. $6x^2 = 12x + 6y^2 + 6y$

30. $-2xy = 18$

31. $9x^2 + 18x + 9y^2 + 27y + 4 = 0$

32. $(y - 1)^2 = 14x$

33. $2x^2 + 5y^2 + 4x + 10y + 5 = 0$

34. $9x^2 + 18x - 15y + 30 = 0$

35. $y^2 - 3y + 7x - x^2 + 16 = 0$

36. $3xy = 48$

37. $2x^2 - x = 5y + 10$

38. $x^2 + 6x = 4y^2 - 8y + 2$

39. $3x^2 + 6x + 4y^2 - 12y + 20 = 0$

40. $6x^2 + 12x - 6y^2 + 6y = 0$
