

Resolver los siguientes sistemas de ecuaciones:

1. $\begin{cases} x^2 + y^2 = 290 \\ x + y = 24 \end{cases}$
(13,11); (11,13)
2. $\begin{cases} x^2 + y^2 = 9 \\ 2x + y = 3 \end{cases}$
(0,3); (12/5, -9/5)
3. $\begin{cases} x^2 + y^2 = 13 \\ y + 3 = 3x \end{cases}$
(2,3); (-1/5, -18/5)
4. $\begin{cases} x - 2y^2 = 0 \\ y + 5 = 3x \end{cases}$
(2,1); (25/18, -5/6)
5. $\begin{cases} x^2 + y^2 = 25 \\ x - \frac{3}{4}y = 0 \end{cases}$
(3,4); (-3,-4)
6. $\begin{cases} x^2 + 3xy = 22 \\ x + y = 5 \end{cases}$
(2,3); (11/2, -1/2)
7. $\begin{cases} 4x^2 - xy = 2(x + y) \\ y - x = 1 \end{cases}$
(2,3); (-1/3, 2/3)
8. $\begin{cases} x^2 - xy + y^2 = 7 \\ x + y = 5 \end{cases}$
(2,3); (3,2)
9. $\begin{cases} y = 1 + 2x \\ x^2 + y^2 + 6x = 16 \end{cases}$
(1,3); (-3,-5)
10. $\begin{cases} x = 3y - 1 \\ \frac{1}{x} - \frac{1}{y} = \frac{-1}{2} \end{cases}$
(2,1); (1,2/3)
11. $\begin{cases} xy = 8 \\ x + y = 6 \end{cases}$
(2,4); (4,2)
12. $\begin{cases} x + y = 6 \\ xy = 9 \end{cases}$
(3,3)
13. $\begin{cases} x^2 - y^2 = 17 \\ x - y = 1 \end{cases}$
(9,8)
14. $\begin{cases} x + y = 3 \\ \frac{1}{x} + \frac{1}{y} = \frac{3}{2} \end{cases}$
(1,2); (2,1)
15. $\begin{cases} 4xy - 6y = 3 \\ 3x - 8y = 5 \end{cases}$
(3;1/2); (1/6, -9/16)
16. $\begin{cases} 3xy - 4y^2 = 0 \\ 3x - 2y = 1 \end{cases}$
(1/3, 0); (2/3, 1/2)
17. $\begin{cases} 2(x + 2y)^2 - (2x + y)^2 = -1 \\ x - y = 5 \end{cases}$
(7,2); (3,-2)
18. $\begin{cases} \frac{x-y}{x+y} + \frac{x+y}{x-y} = \frac{5}{2} \\ x + y = 2 \end{cases}$
(3,-1); (3/2, 1/2)
19. $\begin{cases} \frac{x^2 - 3x + 4}{y^2 - 2y + 3} = \frac{1}{3} \\ 7x - 2y = 1 \end{cases}$
(1,3); (-31/37, -127/37)
20. $\begin{cases} 3 - \frac{2x-1}{x+1} = \frac{y+3}{y+1} \\ 3x + 1 = 2x^2 - y^2 \end{cases}$
(2,1); (-5/14, -4/7)
21. $\begin{cases} x^2 + y^2 = 61 \\ xy = 30 \end{cases}$
(6,5); (-6,-5); (5,6); (-5,-6)
22. $\begin{cases} x^2 + y^2 = 25 \\ xy + 12 = 0 \end{cases}$
(4,-3); (-4,3); (3,-4); (-3,4)
23. $\begin{cases} 2x^2 - 5y^2 = 13 \\ xy + 3 = 0 \end{cases}$
(3,-1); (-3,1)
24. $\begin{cases} x^2 + xy + y^2 = 19 \\ xy = 6 \end{cases}$
(2,3); (3,2); (-2,-3); (-3,-2)
25. $\begin{cases} x^2 + y^2 = 13 \\ x^2 - yx + y^2 = 7 \end{cases}$
(3,2); (2,3); (-3,-2); (-2,-3)
26. $\begin{cases} 2x^2 - y^2 = -1 \\ x^2 + 2y^2 = 22 \end{cases}$
(2,3); (-2,-3); (-2,3); (2,-3)
27. $\begin{cases} 2x^2 - 3y^2 = -6 \\ 4x^2 - y^2 = 8 \end{cases}$
($\sqrt{3}, 2$); ($-\sqrt{3}, -2$); ($\sqrt{3}, -2$); ($-\sqrt{3}, 2$)
28. $\begin{cases} x^2 + y^2 + 9x + 14 = 0 \\ y^2 = 16 + 4x \end{cases}$
(-3,2); (-3,-2)
29. $\begin{cases} x^2 - y^2 + 8 = 0 \\ y^2 = 6x \end{cases}$
($2, 2\sqrt{3}$); ($2, -2\sqrt{3}$); ($4, 2\sqrt{6}$); ($4, -2\sqrt{6}$)
30. $\begin{cases} x^2 + xy = 77 \\ xy + y^2 = 44 \end{cases}$
(7,4); (-7,-4)
31. $\begin{cases} x^2 + 2xy = -8 \\ y^2 + xy = 24 \end{cases}$
(4,-8); (-4,8)
32. $\begin{cases} \frac{1}{x} + \frac{1}{y} = \frac{5}{6} \\ xy = 6 \end{cases}$
(2,3); (3,2)
33. $\begin{cases} \frac{1}{x^2} + \frac{1}{y^2} = 13 \\ \frac{1}{x} - \frac{1}{y} = 1 \end{cases}$
(1/3, 1/2); (-1/2, -1/3)
34. $\begin{cases} x + \frac{2}{y} = 1 \\ y + \frac{1}{x} = 6 \end{cases}$
(1/2, 4); (1/3, 3)
35. $\begin{cases} y + \frac{x}{y} = \frac{21}{2} \\ x - \frac{x}{y} = \frac{9}{2} \end{cases}$
(5,10); (27/2, 3/2)
36. $\begin{cases} x^2 + y^2 = 25 + 2xy \\ x^2 + 2xy + y^2 = 169 \end{cases}$
(9,4); (-9,-4); (4,9); (-4,-9)
37. $\begin{cases} \frac{1}{x} + \frac{1}{y} = \frac{5}{6} \\ \frac{1}{x} - \frac{1}{y} = \frac{1}{6} \end{cases}$
(2,3)
38. $\begin{cases} \frac{2}{x} + \frac{3}{y} = \frac{17}{12} \\ \frac{1}{x} - \frac{2}{y} = \frac{-1}{6} \end{cases}$
(3,4)
39. $\begin{cases} x^2y + xy^2 = 180 \\ \frac{1}{x} + \frac{1}{y} = \frac{9}{20} \end{cases}$
(4,5); (5,4)
40. $\begin{cases} \sqrt{x} + \sqrt{y} = 15 \\ x - y = 105 \end{cases}$
(121,16)
41. $\begin{cases} x + y = 5\sqrt{y} \\ \sqrt{x} - \sqrt{y} = 1 \end{cases}$
(4,1); (9/4, 1/4)