SISTEMAS DE DOS INCÓGNITAS

1. $\begin{cases} x + y = 2 \\ 2x - y = 1 \end{cases}$

2. $\begin{cases} 3x + 2y = 3 \\ -x + y = -1 \end{cases}$

3. $\begin{cases} 2x + y = 3 \\ -x + y = -3 \end{cases}$

4. $\begin{cases} x - y = 5 \\ 2x + 2y = 2 \end{cases}$

5. $\begin{cases} x + y = 1 \\ 2x - y = -1 \end{cases}$

6. $\begin{cases} x - y = 3 \\ -x + 3y = -1 \end{cases}$

7. $\begin{cases} 4x - 3y = 5 \\ -2x + 5y = 1 \end{cases}$

8. $\begin{cases} x + y = 1 \\ 3x + 2y = 0 \end{cases}$

9. $\begin{cases} 5x - y = 3 \\ 2x - 2y = -2 \end{cases}$

10. $\begin{cases} 3x + 2y = 5 \\ 7x + y = 8 \end{cases}$

11. $\begin{cases} x + y = 7 \\ 2x - y = 23 \end{cases}$

12. $\begin{cases} 5x - 6y = 3 \\ 7x - 2y = 17 \end{cases}$

13. $\begin{cases} 2x + y = 9 \\ x - y = 3 \end{cases}$

14. $\begin{cases} 3x + y = 6 \\ 2x - 3y = -7 \end{cases}$

15. $\begin{cases} 3x - y = -5 \\ 2x + y = 0 \end{cases}$

16. $\begin{cases} 5x + 3y = -1 \\ 3x + 5y = -7 \end{cases}$

17. $\begin{cases} 12x - 7y = 3 \\ 15x - 3y = 21 \end{cases}$

18. $\begin{cases} 4x + 12y = -8 \\ 5x - y = 6 \end{cases}$

19. $\begin{cases} 3x + 5y = 12 \\ 5x + 3y = 4 \end{cases}$

20. $\begin{cases} 7x - 3y = -5 \\ 5x + y = 9 \end{cases}$

21. $\begin{cases} 2(x-3) = 2y \\ 2x - y = 5 \end{cases}$

22. $\begin{cases} 5(x+2) = y \\ 2x + y = 3 \end{cases}$

23. $\begin{cases} 3x + y = 5 \\ 2(x+1) = 2y \end{cases}$

24. $\begin{cases} 2x + y = -5 \\ 3(x-2y) = 15 \end{cases}$

25. $\begin{cases} 3x = 3(y-1) \\ 2 = 2(2x-y) \end{cases}$

26. $\begin{cases} 2(3x-2) = -5y \\ 3(2x+3y) = 12 \end{cases}$

27. $\begin{cases} x = 2(4-y) \\ y-3 = x-5 \end{cases}$

28. $\begin{cases} x + 3y = x - 6 \\ x - 1 = 2y + 2x \end{cases}$

29. $\begin{cases} 3(x-2y+1) = -3y \\ x+5y = 2x+3y+3 \end{cases}$

30. $\begin{cases} 4x - y = 3(x-3+y) \\ 3x+5y = -3x+2y \end{cases}$

31. $\begin{cases} x + y = 8 \\ \frac{x}{2} + \frac{y}{3} = 3 \end{cases}$

32. $\begin{cases} x + 2y = 9 \\ 3x - \frac{y}{4} = 2 \end{cases}$

33. $\begin{cases} x + y = 3 \\ \frac{x}{3} + \frac{y}{2} = 2 \end{cases}$

34. $\begin{cases} x - 3y = 6 \\ \frac{x}{3} + 2y = 5 \end{cases}$

35. $\begin{cases} \frac{x}{2} - y = -2 \\ x - \frac{y}{2} = 2 \end{cases}$

36. $\begin{cases} \frac{x}{3} + \frac{y}{2} = 0 \\ \frac{2x}{3} + \frac{3y}{4} = 1 \end{cases}$

37. $\begin{cases} 3x + 2y = 0 \\ \frac{x}{2} + \frac{2y}{3} = -1 \end{cases}$

38. $\begin{cases} 3x = 6y \\ \frac{x}{2} = \frac{3y}{2} - 1 \end{cases}$

39. $\begin{cases} 2x - y = 1 \\ \frac{2x}{3} - \frac{y}{5} = 1 \end{cases}$

40. $\begin{cases} \frac{x-y}{2} + \frac{x+y}{3} = 1 \\ 2x - \frac{3y}{4} = 1 \end{cases}$

41. $\begin{cases} \frac{3x}{6} + \frac{y}{4} = 1 \\ \frac{2x}{10} - \frac{y}{6} = \frac{14}{15} \end{cases}$

42. $\begin{cases} x = 3y \\ \frac{2x}{3} = \frac{7y}{5} + 3 \end{cases}$

43. $\begin{cases} 3x - \frac{2y}{7} = 4 \\ y - 6 = x - 1 \end{cases}$

44. $\begin{cases} \frac{x+1}{y} = 2 \\ \frac{x}{y+1} = 1 \end{cases}$

45. $\begin{cases} 3(x-y) = 2x+1 \\ 4x-15y = -2x \end{cases}$

46. $\begin{cases} \frac{x+y}{x-y} = 5 \\ \frac{3x}{3+3y} = 1 \end{cases}$

47. $\begin{cases} \frac{2x-y}{x} = 4 \\ 2x+3y = 4 \end{cases}$

48. $\begin{cases} \frac{5x}{x+y} = 2 \\ 3x-2y = x-2 \end{cases}$

49. $\begin{cases} \frac{3x}{2x+y} = 2 - \frac{1}{5} \\ 2x+3y = 3 \end{cases}$

50. $\begin{cases} x + 5y = 2x \\ \frac{3x}{2} - 3y = \frac{9}{2} \end{cases}$

Soluciones:

1. x = 1, y = 1
2. x = 1, y = 0
3. x = 2, y = -1
4. x = 3, y = -2
5. x = 0, y = 1
6. x = 4, y = 1
7. x = 2, y = 1
8. x = -2, y = 3
9. x = 1, y = 2
10. x = 1, y = 1
11. x = 10, y = -3
12. x = 3, y = 2
13. x = 4, y = 1
14. x = 1, y = 3
15. x = -1, y = 2
16. x = 1, y = -2
17. x = 2, y = 3
18. x = 1, y = -1
19. x = -1, y = 3
20. x = 1, y = 4
21. x = 2, y = -1
22. x = -1, y = 5
23. x = 1, y = 2
24. x = -1, y = -3
25. x = 2, y = 3
26. x = -1, y = 2
27. x = 4, y = 2
28. x = 3, y = -2
29. x = 1, y = 2
30. x = -1, y = 2
31. x = 2, y = 6
32. x = 1, y = 4
33. x = -3, y = 6
34. x = 9, y = 1
35. x = 4, y = 4
36. x = 6, y = -4
37. x = 2, y = -3
38. x = 4, y = 2
39. x = 3, y = 5
40. x = 2, y = 4
41. x = 3, y = -2
42. x = 15, y = 5
43. x = 2, y = 7
44. x = 3, y = 2
45. x = -5, y = -2
46. x = 3, y = 2
47. x = -1, y = 2
48. x = 2, y = 3
49. x = 3, y = -1
50. x = 5, y = 1

SISTEMAS DE MÁS DE DOS INCÓGNITAS

51. $\begin{cases} x - y + z = 0 \\ x + 2y + 2z = 7 \\ x - y - z = -2 \end{cases}$

52. $\begin{cases} 3x - 2y + 4z = 1 \\ x - y - 2z = 0 \\ 3x - 2y - z = 1 \end{cases}$

53. $\begin{cases} 2x - y + z = 5 \\ 3x - y - z = 2 \\ 2x + y + z = 3 \end{cases}$

54. $\begin{cases} x + y + 2z = 3 \\ 3x - y + z = 2 \\ x - 2y - z = -3 \end{cases}$

55. $\begin{cases} x + y + z = 2 \\ 3x + 2y - z = -1 \\ 2x + 5y + 3z = 3 \end{cases}$

56. $\begin{cases} 4x - 3y + 2z = -7 \\ 2x - y + 5z = 2 \\ x - y + z = -2 \end{cases}$

57. $\begin{cases} x + y - 2z = -1 \\ 3x - y + z = -4 \\ 2x + 2y - z = 1 \end{cases}$

58. $\begin{cases} 3x - y + z = 3 \\ 2x + y - z = 2 \\ x + y + z = 3 \end{cases}$

59. $\begin{cases} x - y + z = 0 \\ 2x - y + 2z = 1 \\ x + 2y - z = 5 \end{cases}$

60. $\begin{cases} x - y + z = 2 \\ 3x - 2y - z = 3 \\ x + y - 3z = 0 \end{cases}$

61. $\begin{cases} 3x - y + z = 4 \\ x + y - z = 0 \\ x + 2y + 2z = -1 \end{cases}$

62. $\begin{cases} x - y + z = 3 \\ 2x - y + 2z = 8 \\ x + y + 2z = 8 \end{cases}$

63. $\begin{cases} x + y = 1 \\ y + z = 0 \\ x + z = 3 \end{cases}$

64. $\begin{cases} 3x + 2y = 1 \\ x - 2y = 3 \\ y - z = 0 \end{cases}$

65. $\begin{cases} x + \dfrac{y}{2} = 7 \\ y + \dfrac{z}{2} = 8 \\ z + \dfrac{x}{4} = 5 \end{cases}$

66. $\begin{cases} \frac{x}{2} + \frac{y}{3} + \frac{z}{4} = 8 \\ x - 2y + z = 6 \\ \frac{x}{3} + \frac{y}{2} - \frac{z}{4} = 2 \end{cases}$

67. $\begin{cases} x + y + z + t = 2 \\ 2x + y - 2z + 3t = -5 \\ -x - 3y + z - t = 2 \\ 3x - y - z + t = 0 \end{cases}$

68. $\begin{cases} x - y + 2z - t = 0 \\ 3x - 2y - z + t = 5 \\ x + y - 2z + t = 4 \\ -x - y + z + t = -2 \end{cases}$

69. $\begin{cases} x - y + 2z - 3t = 5 \\ 2x + y - z - t = -4 \\ x + y + z - t = 2 \\ -x + 2y + 2z + t = 4 \end{cases}$

70. $\begin{cases} x - 3y + z + t = -4 \\ \frac{x}{2} + \frac{y}{3} - z \_ = 2 \\ \frac{x}{4} + \frac{y}{3} + \frac{t}{12} = 2 \\ \frac{x}{2} + y - z + \frac{t}{3} = 4 \end{cases}$

71. $\left.\begin{array}{r} x + y - u = 5 \\ 3x - 2y + t = 4 \\ x + z - u = 3 \\ 2x - 2y + z + u = -1 \\ x - 2y - z = 1 \end{array}\right\}$

72. $\left.\begin{array}{rcl} \frac{x+1}{2} - \frac{y+2}{4} = 0 \\ \frac{x-1}{3} + \frac{y+z}{2} = 2 \\ x + \frac{y-z}{4} = 1 \end{array}\right\}$

73. $\left.\begin{array}{rcl} \frac{x}{2} + 2y + z = 2 \\ x - y + \frac{z}{2} = -1 \\ x + y - 2z = 1 \end{array}\right\}$

74. $\left.\begin{array}{rcl} \frac{x+z}{3} = y-1 \\ x + y - z = 1 \\ \frac{y+z}{2} = x+2 \end{array}\right\}$

75. $\left.\begin{array}{rcl} \frac{x+z}{3} = y+2 \\ x + y = 5z \\ x + 2y - 2z = 3 \end{array}\right\}$

Soluciones:

51. x = 1, y = 2, z = 1

52. x = 1, y = 1, z = 0

53. x = 1, y = -1, z = 2

54. $x = 2,\ y = 3,\ z = -1$
55. $x = 1,\ y = -1,\ z = 2$
56. $x = 0,\ y = 3,\ z = 1$
57. $x = -1,\ y = 2,\ z = 1$
58. $x = 1,\ y = 1,\ z = 1$
59. $x = 2,\ y = 1,\ z = -1$
60. $x = 2,\ y = 1,\ z = 1$
61. $x = 1,\ y = -1,\ z = 0$
62. $x = 4,\ y = 2,\ z = 1$
63. $x = 2,\ y = -1,\ z = 1$
64. $x = 1,\ y = -1,\ z = -1$
65. $x = 4,\ y = 6,\ z = 4$
66. $x = 6,\ y = 6,\ z = 12$
67. $x = 1,\ y = 0,\ z = 2,\ t = -1$
68. $x = 2,\ y = 1,\ z = 0,\ t = 1$
69. $x = 4,\ y = -3,\ z = 5,\ t = 4$
70. $x = 4,\ y = 3,\ z = 1,\ t = 0$
71. $x = 2,\ y = 1,\ z = -1,\ t = 0,\ u = -2$
72. $x = 1,\ y = 2,\ z = 2$
73. $x = 0,\ y = 1,\ z = 0$
74. $x = 3,\ y = 4,\ z = 6$
75. $x = 5,\ y = 0,\ z = 1$