

1.  $3x^2 - 12 = 0$
2.  $9x^2 - 36 = 0$
3.  $3x^2 - 4x = 0$
4.  $\frac{x^2}{3} - \frac{2x}{5} = 0$
5.  $4x^2 - 196 = 0$
6.  $x^2 - 100 = 0$
7.  $2x^2 - 3x = 4x + x^2$
8.  $7x^2 - 28 = 0$
9.  $x^2 - 1 = 0$
10.  $2x^2 - 18 = 0$
11.  $\frac{7x}{2} - \frac{2x^2}{3} = \frac{x}{4}$
12.  $3x^2 - 2 = x^2 - 52$
13.  $3x^2 - 27 = 0$
14.  $x^2 - 2x + 15 = 0$
15.  $x^2 + 8x + 12 = 0$
16.  $x^2 - 8x + 7 = 0$
17.  $x^2 + x - 12 = 0$
18.  $x^2 + 2x - 15 = 0$
19.  $x^2 - 10x + 9 = 0$
20.  $x^2 + 6x + 8 = 0$
21.  $x^2 - x - 12 = 0$
22.  $x^2 + 10x + 25 = 0$
23.  $3x^2 - 5x - 2 = 0$
24.  $10x^2 - 19x + 6 = 0$
25.  $3x^2 + 8x - 3 = 0$
26.  $8x^2 + 14x + 5 = 0$
27.  $4x^2 + 28x + 49 = 0$
28.  $x^2 - x - 30 = 0$
29.  $4x^2 - 32 = x^2 - 5$
30.  $4(x^2 + 1) - x = -3x^2 + 2x + 8$
31.  $7x^2 + x + 1 = 6x^2 + 4x + 5$
32.  $\frac{x^2}{2} + \frac{7x}{2} - 7 = x$
33.  $\frac{x^2}{3} - \frac{x}{5} = \frac{x^2}{10} + 3x$
34.  $3x^2 + x + 2 = 0$
35.  $6x^2 - 1 + \frac{2x(3-x)}{3} = \frac{5x^2 - 2}{6} - 4x^2 + 2 + \frac{47}{6}$
36.  $\frac{3(x^2 - 11)}{5} - \frac{2(x^2 - 60)}{7} = 36$
37.  $2(x-3) - (1-3x) = 4 + 3(x+1)$
38.  $5x - 4(x+2) = 3(x+5) - (1-6x)$
39.  $\frac{2x+1}{5} - \frac{x-2}{3} = \frac{x-2}{6} + 2$
40.  $\frac{x-2}{2} - \frac{2x+5}{4} = x - \frac{1}{2}$
41.  $\frac{3x}{5} - \frac{2x}{3} = 3 - \frac{x}{6}$
42.  $\frac{1}{2} \left( \frac{x}{2} - \frac{1}{3} \right) - \frac{5}{12} = \frac{x}{6}$
43.  $4(1-5x) - (x+1) = 7x - 5$
44.  $\frac{x+6}{4} - \frac{1-3x}{12} = \frac{x+2}{3} - \frac{x+1}{6}$
45.  $\frac{2}{3} \left( 1 - \frac{x}{4} \right) + \frac{1}{2} \left( \frac{2x}{3} + \frac{2}{3} \right) = 0$
46.  $\frac{x-3}{5} - 3 = x - \frac{2x+1}{10}$
47.  $3x - \frac{x}{4} + \frac{1}{3} = \frac{5x}{6} - 2x$
48.  $7x - (1-2x) + 3(x+5) - 2(x-6) = 0$
49.  $\frac{x-4}{5} - \frac{x-1}{3} = x + \frac{1}{6}$
50.  $\frac{2x+5}{12} - \frac{x-2}{30} = \frac{1}{15}$
51.  $\frac{x-3}{5} - \frac{x+2}{10} = \frac{2(x+3)}{5} - 1$
52.  $\frac{3}{4} \left( x - \frac{1}{2} \right) - \frac{2}{3} \left( \frac{x}{2} + \frac{1}{4} \right) = \frac{x}{2} + 3$
53.  $2 - (x+3) + 5(x-2) = 3(x-5) - (5x+4)$
54.  $\frac{x+1}{5} - \frac{x-3}{15} = \frac{x}{3} + \frac{1}{5}$
55.  $-8(2x-1) - 4 = -7x - 23$
56.  $\frac{x}{9} - \frac{x}{3} = \frac{x+1}{7} - 10$
57.  $-4(2x-1) + \frac{3x+1}{2} = -5x - 3$
58.  $4(x-3) + \frac{x}{2} = -(x-4) + 1$
59.  $3(2x-5) + 8x - 6 = \frac{x}{2} - (5x+3)$
60.  $\frac{x-4}{5} - 4(1-2x) - \frac{2-4x}{10} = 2(x-3) + \frac{5x+6}{2}$

## SOLUCIONES:

1. 2 y -2
2. 2, y -2
3. 0 y  $\frac{4}{3}$
4. 0 y  $\frac{6}{5}$
5. 7 y -7
6. 10 y -10
7. 0 y 7
8. 2 y -2
9. 1 y -1
10. 3 y -3
11. 0 y  $\frac{39}{8}$
12. sin solución real
13. 3 y -3
14. sin solución real
15. -6 y -2
16. 7 y 1
17. -4 y 3
18. -5 y 3
19. 9 y 1
20. -4 y -2
21. 4 y -3
22. -5 y -5
23. 2 y  $-\frac{1}{3}$
24.  $\frac{3}{2}$  y  $\frac{2}{5}$
25. -3 y  $\frac{1}{3}$
26.  $-\frac{5}{4}$  y  $-\frac{1}{2}$
27.  $-\frac{7}{2}$  y  $-\frac{7}{2}$
28. 6 y -5
29. -3 y 3
30. 1 y  $-\frac{4}{7}$
31. 4 y -1
32. 2 y -7
33. 0 y  $\frac{96}{7}$
34. sin solución real
35. 1 y  $-\frac{21}{17}$
36. 9 y -9
37. 7
38.  $-\frac{11}{4}$
39. -8
40.  $-\frac{7}{4}$
41. 30
42. 7
43.  $\frac{2}{7}$
44.  $-\frac{11}{4}$
45. -6
46.  $-\frac{35}{6}$
47.  $-\frac{4}{47}$
48.  $-\frac{13}{5}$
49.  $-\frac{19}{34}$
50.  $-\frac{25}{8}$
51.  $-\frac{10}{3}$
52.  $-\frac{85}{2}$
53.  $-\frac{4}{3}$
54. 1
55. 3
56. 27
57. 5
58.  $\frac{34}{11}$
59.  $\frac{36}{37}$
60.  $\frac{20}{41}$