

# ECUACIONES EXPONENCIALES

## DIRECTAS

- $2^x = 8$
- $2^x = 64$
- $2^{x+1} = 256$
- $2^x = 1024$
- $2^{x+1} = 8$
- $4^{x+1} = 8$
- $3^x = 27$
- $3^x = 81$
- $3^{x+1} = 729$
- $5^x = 125$

- $5^{x+2} = 625$
- $2^{x+1} = 16$
- $2^{x-1} = 64$
- $2^{x+2} = 256$
- $2^{x-2} = 1024$

- $7 \cdot 2^x = 224$
- $9 \cdot 3^{x-1} = 243$
- $125 \cdot 5^{3x} = 1$
- $7^{x+1} = 2401$
- $5^{x^2-x-20} = 1$
- $8 \cdot 2^{1-x} = 64$
- $7^{x^2} \cdot 7^{-5x} \cdot 7^4 = 1$
- $25 \cdot 5^{x-1} = 5^5$
- $10^{x-2} \cdot 1000 = 1$
- $7^{x+1} \cdot 7^x = 7^{x-1} \cdot \frac{1}{7}$

## CON PRODUCTOS

- $2 \cdot 5^x = 250$
- $3 \cdot 2^x = 24$
- $3 \cdot 5^x = 1875$
- $3 \cdot 5^x = 75$

## CON SUMAS Y RESTAS

- $5^{x-1} + 100 = 5^x$
- $4^x + 4^{x-1} - 4^{x+1} + 44 = 0$
- $11^x - 11^{x+2} = 1320$
- $3^x + 3^{x+1} + 3^{x-1} = 351$
- $2^{x-1} + 2^x + 2^{x+1} = 7$
- $3^{x-1} + 3^x + 3^{x+1} = 117$
- $2^x + 2^{x+1} + 2^{x+2} + 2^{x+3} = 480$
- $2^x + 2^{x+1} + 2^{x+2} + 2^{x+3} = \frac{15}{2}$
- $3^x + 3^{x-1} = 12$
- $3^{2x} + 81 = 2 \cdot 3^{x+2}$

- $3^{2 \cdot (x+1)} - 28 \cdot 3^x + 3 = 0$
- $3^{2x-1} - 8 \cdot 3^{x-1} = 3$
- $2^{x+3} + 4^{x+1} - 320 = 0$
- $3^{2x+2} - 28 \cdot 3^x + 3 = 0$
- $9^x - 2 \cdot 3^{x+2} + 1 = -80$
- $4^x - 3 \cdot 2^{x+1} + 8 = 0$
- $5^{2x} - 30 \cdot 5^x + 125 = 0$
- $5^{2x} - 6 \cdot 5^x + 5 = 0$
- $4^x - 5 \cdot 2^x + 4 = 0$
- $9^x - 2 \cdot 3^x = 3$

## SOLUCIONES:

- |                 |                         |              |                         |
|-----------------|-------------------------|--------------|-------------------------|
| 1. $x = 3$      | 14. $x = 6$             | 27. $x = 4$  | 40. $x_1 = -2; x_2 = 1$ |
| 2. $x = 6$      | 15. $x = 8$             | 28. $x = -1$ | 41. $x = 2$             |
| 3. $x = 7$      | 16. $x = 3$             | 29. $x = -3$ | 42. $x = 3$             |
| 4. $x = 10$     | 17. $x = 3$             | 30. $x = 3$  | 43. $x_1 = -2; x_2 = 1$ |
| 5. $x = 2$      | 18. $x = 4$             | 31. $x = 2$  | 44. $x = 2$             |
| 6. $x = 2^{-1}$ | 19. $x = 2$             | 32. $x = 1$  | 45. $x_1 = 2; x_2 = 1$  |
| 7. $x = 3$      | 20. $x = 5$             | 33. $x = 4$  | 46. $x_1 = 2; x_2 = 1$  |
| 8. $x = 4$      | 21. $x = 4$             | 34. $x = 1$  | 47. $x_1 = 0; x_2 = 1$  |
| 9. $x = 5$      | 22. $x = -1$            | 35. $x = 3$  | 48. $x_1 = 0; x_2 = 2$  |
| 10. $x = 3$     | 23. $x = 3$             | 36. $x = 5$  | 49. $x = 1$             |
| 11. $x = 2$     | 24. $x_1 = 5; x_2 = -4$ | 37. $x = -1$ |                         |
| 12. $x = 3$     | 25. $x = -2$            | 38. $x = 2$  |                         |
| 13. $x = 7$     | 26. $x_1 = 4; x_2 = 1$  | 39. $x = 2$  |                         |