

1. RESOLVER LAS SIGUIENTES ECUACIONES LOGARÍTMICAS

- a) $2 \log x - \log(x+6) = 3 \log 2$ (Soluc: $x=12$)
- b) $4 \log_2(x^2+1) = \log_2 625$ (Soluc: $x=\pm 2$)
- c) $\log(x^2+1) - \log(x^2-1) = \log \frac{13}{12}$ (Soluc: $x=\pm 5$)
- d) $\log(x-1) = 2$ (Soluc: $x=101$)
- e) $\ln(x+2) = 1$ (Soluc: $x=e-2$)
- f) $\ln(x-3) + \ln(x+1) = \ln 3 + \ln(x-1)$ (Soluc: $x=5$)
- g) $2 \log^2 x + 7 \log x - 9 = 0$ (Soluc: $x_1 = 10; x_2 = \sqrt{10} / 10^5$)
- h) $2 \log x^2 + 7 \log x - 9 = 0$ (Soluc: $x = \sqrt[11]{10^9}$)
- i) $2 \ln(x-3) = \ln x - \ln 4$ (Soluc: $x=4$)
- j) $\log(x+3) - \log(x-6) = 1$ (Soluc: $x=7$)
- k) $\log 10^{x-1} = 2$ (Soluc: $x=3$)
- l) $\log(x+9) = 2 + \log x$ (Soluc: $x=1/11$)
- m) $\log(x+1) + \log(x-1) = 1/100$ (Soluc: $x = \sqrt{1 + \sqrt[100]{10}}$)
- n) $\log \sqrt{3x+5} + \log \sqrt{x} = 1$ (Soluc: $x=5$)
- o) $\log(x^2 - 7x + 110) = 2$ (Soluc: $x_1=2; x_2=5$)
- p) $2 \ln x + 3 \ln(x+1) = 3 \ln 2$ (Soluc: $x=1$)
- q) $\log(x^2 + 3x + 36) = 1 + \log(x+3)$ (Soluc: $x_1=1; x_2=6$)
- r) $\ln x + \ln 2x + \ln 4x = 3$ (Soluc: $x=e/2$)
- s) $4 \log x - 2 \log(x-1) = 2 \log 4$ (Soluc: $x=2$)
- t) $\ln(x-1) + \ln(x+6) = \ln(3x+2)$ (Soluc: $x=2$)
- u) $2 \log x + \log(x-1) = 2$ (Soluc: $x=5$)
- v) $2 \log(x+9) - \log x = 2$ (Soluc: $x \approx 1,81$)
- w) $\log(2x+6) - 1 = 2 \log(x-1)$ (Soluc: $x_1=2; x_2=1/5$)
- x) $\log(x+11) - 2 \log x = 1$ (Soluc: $x=11/10$)
- y) $\log(6x-1) - \log(x+4) = \log x$ (Soluc: $x=1$)
- z) $\log x^2 + \log x^3 = 5$ (Soluc: $x=10$)