DETERMINE EL CONJUNTO DE SOLUCIÓN DE LAS SIGUIENTES ECUACIONES LOGARÍTMICAS

1. $\log_2 x + \log_2 (x+1) = 1$
2. $\log_3 (-x) + \log_3 (x+6) = 2$
3. $\log_4 (x+3) + \log_4 (x-3) = 2$
4. $\log\left(x - \frac{1}{2}\right) = 2$
5. $\log_3 (\log_5 x) = 1$
6. $\log_2 [\log_3 (x+2)] = 2$
7. $2\log_3 (x+1) = 4$
8. $\log_2 (x-1) + \log_2 (x+1) = 3$
9. $\log_3 (x^2 - x - 2) - \log_3 (2x-4) = 3$
10. $\log_{\frac{1}{2}} (x^2 + x) - \log_{\frac{1}{2}} (x^2 - x) = 1$
11. $\log 2 + \log (x+1) = 1$
12. $\log_3 x - \log_3 (2x-1) = 2$
13. $\log_3 x + \log_3 (x-2) = 1$
14. $\log x + \log (x-1) = 1 + \log 2$
15. $2\log_4 (x+3) - \log_4 (x^2 - 9) = 2$
16. $\log_3 (x-1) + \log_3 (x+4) = 1 + \log_3 2$
17. $\log_3 (x^2 - 2x - 3) + \log_3 (x+3) = 2 + \log_3 (x+1)$
18. $2\log x - \log 32 = \log\left(\frac{x}{2}\right)$
19. $2\log_3 x + \log_3 64 = \log_3 x^3$
20. $\log_5 (x+2) + \log_5 (x-2) = \log_5 (2x-1)$
21. $\ln (x+1) + \ln (x-1) = \ln (5x-7)$
22. $\log_6 (x+1)^3 = \log_6 (x^2 + 2x + 1) + \log_6 3$
23. $2\log x = \log 1$
24. $\log (3x+1) = \log (2x)$
25. $\ln 6 + \ln x^2 = \ln (2-x)$
26. $\frac{\log (2x-1)}{\log 5} = \log_5 \left(\frac{5}{x+1}\right)$
27. $\log_2 (x+1) = \log_2 2 - \log_2 (x+2)$
28. $\log x + \log 3 = \log 15$