

Algebra II

Logarithm Practice Worksheet

Instructions: If you are given an Exponential, re-write it as a Logarithm. If you are given a Logarithm, re-write it as an Exponential. If you have a question, raise your hand; I will come to help.

1. $2^4 = 16$ $\log_2(16) = 4$	2. $\log_2 16 = 4$ $2^4 = 16$	3. $x^4 = 12$ $\log_x(12) = 4$	4. $\log_x 11 = 12$ $x^{12} = 11$	5. $\log_g 17 = 3$ $g^3 = 17$
6. $\log_{12} 144 = 2$ $12^2 = 144$	7. $12^2 = 144$ $\log_{12}(144) = 2$	8. $3^3 = 27$ $\log_3(27) = 3$	9. $\log_3 27 = 3$ $3^3 = 27$	10. $5^x = 12$ $\log_5(12) = x$
11. $4^{11} = x$ $\log_4(x) = 11$	12. $(1.7z)^4 = 4$ $\log_{1.7z}(4) = 4$	13. $\log_{5x} 12 = 9$ $(5x)^9 = 12$	14. $2^k = 12$ $\log_2(12) = k$	15. $\log 14 = r$ $10^r = 14$
16. $\log_{11} 121 = z$ $11^z = 121$	17. $r^{34} = 1080$ $\log_r(1080) = 34$	18. $4^2 = 16$ $\log_4(16) = 2$	19. $\log_4 16 = 2$ $4^2 = 16$	20. $\log_2 64 = x$ $2^x = 64$
21. $9^2 = 81$ $\log_9(81) = 2$	22. $\log_9 81 = 2$ $9^2 = 81$	23. $2^k = 12$ $\log_2(12) = k$	24. $\log_{4.5} 18 = 7$ $4.5^7 = 18$ this one is so not true	25. $7^3 = d$ $\log_7(d) = 3$
26. $\log_b k = x$ $b^x = k$	27. $b^x = k$ $\log_b(k) = x$	28. $\log_{240} 3096 = z$ $240^z = 3096$	29. $-8^r = -512$ $\log_8(512) = r$	30. $1^k = 1$ $\log_1(1) = k$
31. $\log_{-1} 1 = q$ $(-1)^q = 1$	32. $4^x = 128$ $\log_4(128) = x$	33. $\log_{-2} 4 = m$ $(-2)^m = 4$	34. $z^{14} = 11$ $\log_z(11) = 14$	35. $\log_{12} k = 8$ $12^8 = k$
36. $r^{12} = 88$ $\log_r(88) = 12$	37. $\log_n y = 44$ $n^{44} = y$	38. $k^{16} = 12$ $\log_k(12) = 16$	39. $\log_b k = x$ $b^x = k$	40. $b^x = k$ $\log_b(k) = x$