

Solving Exponentials WS

Solve the equation. Round the result to 3 decimal places.

1. $4^x = 16$

2. $3^x = 243$

3. $5^x = 625$

4. $7^x = \frac{1}{49}$

5. $8^x = 4$

6. $\left(\frac{1}{2}\right)^x = 32$

7. $\left(\frac{1}{4}\right)^x = 64$

8. $\left(\frac{3}{4}\right)^x = \frac{27}{64}$

9. $3^{x-1} = 27$

10. $e^x = 2$

11. $e^x = 4$

12. $6^{5x} = 3000$

13. $4e^{2x} = 40$

14. $4^{-3t} = 0.10$

15. $2^{3-x} = 565$

16. $500e^{-x} = 300$

17. $7 - 2e^x = 5$

18. $-14 + 3e^{2x} = 11$

Solving Logarithms WS

Solve the equation. Round the result to 2 decimal places.

1. $\ln x = -1$

2. $\ln x = -7$

3. $\log_4 x = 3$

4. $\log x - 2 = 0$

5. $\log x = -1$

6. $\ln(2x - 1) = 0$

7. $\ln(3x + 5) = 8$

8. $2 \ln(3x) = 19$

9. $\log(z - 3) = 2$

10. $4 \log(x - 6) = 11$

11. $2 \ln x = 7$

12. $\ln(4x) = 1$

13. $6 \log_4(2x) = 12$

14. $4 \log_2(x - 3) = 16$

15. $-2 \log_5(7x) = 2$

16. $-6 \log_3(x - 4) = -24$