

Use a calculator to evaluate the expression. Round your result to three decimal places.

1. $150^{\sqrt{3}}$

2. $e^{-\frac{2}{3}}$

3. $\log 211$

4. $\ln 2\pi$

Rewrite the equation in exponential form.

5. $\log_5 125 = 3$

6. $\ln 1 = 0$

7. $\log_{49} 7 = \frac{1}{2}$

8. $\log 10,000 = 4$

Rewrite the equation in logarithmic form.

9. $9^{\frac{1}{2}} = 3$

10. $e^2 = 7.389$

11. $4^3 = 64$

12. $10^{1.4} = 25.12$

Solve the exponential equation. (round to 2 decimal places when necessary)

13. $4^{x-5} = \frac{1}{64}$

14. $3e^x = 9$

15. $2^{3-2x} + 4 = 84$

16. $10^{x-3} = 10,000$

Solve the logarithmic equation. (round to 2 decimal places when necessary)

17. $\log_2 x = 6$

18. $3 \ln x = 15$

19. $5 \log(x + 4) = 12$

20. $8 \log_{49}(3x) = 4$