Common Logs and The Natural Base, *e* HW

Solve each equation. Round your answers to the nearest hundredth.

1. $2^x = 49$

2. $8^x = 240$

3. $7.6^x = 64$

4. $3^x = 0.26$

5. $7^{-x} = 0.022$

6. $5^x = 1.29$

7. $3^{x-6} = 81$

8. $67 - 2^x = 39$

9. $1 + 5^x = 360$

Evaluate each expression to the nearest thousandth. If the expression is undefined, write *undefined*.

10. e^9

11. $e^{3.4}$

12. $3e^{0.05}$

13. $3e^{-0.257}$

14. $e^{\frac{1}{4}}$

15. $\ln 7$

16. $\ln 99{,}999$

17. $\ln 0.994$

18. $\ln \sqrt{5}$

19. $\ln (-3)$

Write in ascending order.

20. $e, e^0, \ln 1, \ln \frac{1}{2}$

21. $e^{1.3}, \ln 1.3, 10^{1.3}, \log 1.3$

Simplify the expression.

22. $e^{\ln 5}$

23. $e^{2\ln 5}$

24. $\ln e^4$

25. $2\ln e^4$

Write in exponential or logarithmic form.

26. $e^x = 1$

27. $\ln 5 \approx 1.61$

28. $e^{0.69} \approx 1.99$

Solve each equation for x by using the natural logarithm function. Round your answers to the nearest hundredth.

29. $e^x = 8$

30. $e^{2x} = 20$

31. $e^{-\frac{1}{3}x} = 10$