In Problems 1-6, use equality of exponents to solve each problem.

1. $x = 5$	2. $x = \dfrac{3}{7}$
3. $x = \dfrac{7}{4}$	4. $x = 0$
5. $x = \dfrac{28}{9}$	6. $x = \dfrac{-1}{3}$

In Problems 7-12, solve the exponential equation

7. $x = \ln 3.1$	8. $x = \ln 12$
9. $x = \dfrac{1 + \ln 212}{4}$	10. $x = \dfrac{\ln 13 + 3\ln 4}{2\ln 4}$
11. $x = \dfrac{\ln 2 + 3\ln 4}{7\ln 2 - \ln 4}$	12. $x = \ln 2$

In Problems 13-23, solve the logarithmic equation

13. $x = 25$	14. $x = 23$
15. $x = \dfrac{-8}{9}$	16. $x = \dfrac{1}{e^{2/5}}$
17. $x = 4$	18. $x = \dfrac{-1}{2}$
19. No solution	20. $x = \dfrac{11}{2}$
21. $x = \dfrac{-7}{11}$	22. $x = 4$
23. No solution	

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