

Prep for Basic Chemistry: Competency 1 Practice

**NOTE: You may use your calculator for the test.*

Rewrite these numbers in power-of-ten form:

1. $0.000007 =$ _____

2. $0.00008 =$ _____

3. $500,000 =$ _____

4. $8,000,000 =$ _____

5. $0.000508 =$ _____

6. $15,000 =$ _____

7. $6,760,000,000 =$ _____

8. $70,000,000,000 =$ _____

9. $0.00000000788 =$ _____

10. $0.00000000046 =$ _____

Multiply or divide, then write each product or quotient in correct power-of-ten form:

11. $(6.5 \times 10^6)(6 \times 10^{-4}) =$ _____

12. $(1.5 \times 10^5)(6 \times 10^{-6}) =$ _____

13. $(2.7 \times 10^7)(7.7 \times 10^6) =$ _____

14. $(4.3 \times 10^{-5})(9 \times 10^{-7}) =$ _____

15. $(3 \times 10^8)(7 \times 10^{-5}) =$ _____

16. $\frac{8 \times 10^{-8}}{8 \times 10^{-5}} =$ _____

17. $\frac{1.1 \times 10^{-7}}{2 \times 10^8} =$ _____

18. $\frac{9.6 \times 10^{-6}}{6 \times 10^3} =$ _____

19. $\frac{9.7 \times 10^6}{5 \times 10^7} =$ _____

20. $\frac{9.7 \times 10^{-5}}{2 \times 10^6} =$ _____

Use a calculator to find the logarithms of these numbers to 3 decimal places:

21. 4.38 _____

22. 0.85 _____

23. 2.2031 _____

24. 651 _____

25. 0.0794 _____