

# Practice 11

For use with Section 2-3

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Write each number in scientific notation.

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|------------|------------------|---------------|
| 1. 567,000 | 2. 45.8          | 3. 0.0019     |
| 4. 0.0596  | 5. 7,000,000,000 | 6. 84         |
| 7. 453.5   | 8. 0.000228      | 9. 7050       |
| 10. 0.05   | 11. 50,600       | 12. 6,000,000 |

Write each number in decimal notation.

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|---------------------------|---------------------------|----------------------------|
| 13. $3.62 \times 10^{-3}$ | 14. $5.8 \times 10^7$     | 15. $6.43 \times 10^3$     |
| 16. $1.98 \times 10^1$    | 17. $3.07 \times 10^{-2}$ | 18. $9.5 \times 10^{-6}$   |
| 19. $5.638 \times 10^0$   | 20. $8 \times 10^4$       | 21. $4.875 \times 10^{-1}$ |

Simplify. Write each answer in scientific notation.

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|--|--|--|
| 22. $(1.2 \times 10^3)(3 \times 10^2)$         | 23. $(3.6 \times 10^{-4})(1.5 \times 10^{-3})$ |  |
| 24. $\frac{4.5 \times 10^8}{9 \times 10^{-3}}$ | 25. $\frac{8.4 \times 10^{-6}}{7 \times 10^5}$ | 26. $\frac{1.28 \times 10^7}{1.6 \times 10^6}$ |
| 27. $300(5.6 \times 10^{-4})$                  | 28. $0.18(3.2 \times 10^7)$                    | 29. $16(1.8 \times 10^{-8})$                   |
| 30. $\frac{4.9 \times 10^6}{7}$                | 31. $\frac{4 \times 10^{12}}{25}$              | 32. $\frac{2.7 \times 10^{-3}}{5000}$          |

33. Sound travels about 340 m in one second. How far would sound travel in a minute and a half? Express your answer in scientific notation.
34. An India paper edition of an unabridged dictionary is 2.75 inches thick, not including the covers. There are 3210 numbered pages in the dictionary. How many sheets of India paper is this (two pages are printed on each sheet)? What is the thickness of one sheet of India paper? Express your answer in scientific notation.
35. During the year 1988, the average American ate an average of 31 eggs. There were about 246 million Americans at that time. How many eggs were eaten by all Americans during 1988? Express your answer in scientific notation.
36. *Writing* Suppose you were given two numbers in scientific notation. Describe a method for deciding which one is larger. Describe a way to estimate quickly how many times larger one number is than the other.