

**CHEMISTRY****SIGNIFICANT FIGURE PRACTICE IV**

Write the number of significant figures in the following measurements.

1. \_\_\_\_\_ 2.708
2. \_\_\_\_\_ 16.3050
3. \_\_\_\_\_ 50.007
4. \_\_\_\_\_ 3000010
5. \_\_\_\_\_ 0.00045
6. \_\_\_\_\_ 0.00458
7. \_\_\_\_\_ 589000
8. \_\_\_\_\_  $6.38 \times 10^9$
9. \_\_\_\_\_ 50800
10. \_\_\_\_\_  $4.678 \times 10^{22}$
11. \_\_\_\_\_ .789.006
12. \_\_\_\_\_  $3.67 \times 10^{-4}$
13. \_\_\_\_\_ 507.7800
14. \_\_\_\_\_ 0.000000875
15. \_\_\_\_\_ 0.00480
16. \_\_\_\_\_ 3322.008
17. \_\_\_\_\_ 540300
18. \_\_\_\_\_ 4506.003
19. \_\_\_\_\_ 287.345
20. \_\_\_\_\_ 56.000

21. Round off the following numbers to three significant figures.

- (a) 4325
- (b)  $6.873 \times 10^3$
- (c) 0.17354
- (d) 7.8939
- (e)  $9.237 \times 10^{-3}$
- (f) 0.0299817

22. How many significant figures does each of the numbers contain?

- (a) 0.0278 meter
- (b) 1.3 centimeters
- (c) 1.00 foot
- (d) 8 021 yards
- (e)  $7.98 \times 10^{-3}$  pound
- (f) 0 2003 ton
- (g)  $4.69 \times 10^4$  tons
- (h)  $1 \times 10^{12}$  atoms
- (i)  $1.73 \times 10^{24}$  atoms

23. Express the following numbers in standard exponential form with the indicated number of significant figures.

- (a) 1000 (2 sig. fig.)
- (b) 43,927 (3 sig. fig.)
- (c) 0.000286 (3 sig. fig.)
- (d) 0.000098765 (5 sig. fig.)
- (e) 10,000 (you decide how many significant figures)

24. Express the following exponentials as ordinary numbers.

- (a)  $7.23 \times 10^4$
- (b)  $8.193 \times 10^2$
- (c)  $1.98 \times 10^{-3}$
- (d)  $7.51 \times 10^{-7}$
- (e)  $5.43 \times 100$