1–4 Practice Problems, page 23

Answers marked with an asterisk denote additional practice problems that appear in the Teacher's Edition.

*1. 0.83 m
2. 4.59×10^5 mL
3. 1.123 ng
4. 32 L
5. 2,500 µm
*6. 1,351 ps is longer than 1.2 ns. 1,351 ps is equal to 1.351 ns, which is greater than 1.2 ns.
7. 232.1 kPa is the larger. 232.1 kPa is equal to 232,100 Pa, which is greater than 125,487 Pa.
8. 23.78 dg is the smaller. 23.78 dg is equal to 237.8 cg, which is smaller than 285.0 cg. 285.0 cg is equal to 28.50 dg which is larger than 23.78 dg.
9. 175.6 mm is smaller. 175.6 mm is equal to 17.56 cm, which is smaller than 38.4 cm.
10. a. 0.000 782 4 g
    b. 0.000 345 g
    c. 3.78 g
    d. 0.034 981 g

1–6 Practice Problems, pages 33–34

Answers marked with an asterisk denote additional practice problems that appear in the Teacher's Edition.

*1. 2
*2. 3
3. 3
4. 3
5. 5
6. 3
7. 1
*8. 14.9 g
9. 180.3 kg
10. 0.220 Pa
11. –250 g
12. –610.8 ns
*13. 0.715 mL
14. 1250 cal
15. –0.001 103 L
*16. 8.96×10^3
*17. 2.3×10^{-4}
18. 8.6×10^4
19. 3.6×10^7
20. 2.53×10^{-8}
21. correct
22. 2.53×10^{-4}
23. 6.805×10^8
*24. 0.585 g/mL
*25. No. The density is only 7.11g/cm^3
26. 218 g
27. 57.0 cm^3
28. 2.70 g/cm^3

1–7 Review and Reinforcement, pages 41–42

1. c
2. a, c
3. b
4. 1.0×10^{-3} g/cm^3
5. 3×10^3 kg
6. Rock B has the greater density because its mass to volume ratio is greater.