

Some solutions to Appendix C and postlab questions of unit 1:

Appendix C:

3. (p. 279) Try these practice problems:

$$(4 \times 10^8) + (6 \times 10^5) = 4.006 \times 10^8$$

$$(3 \times 10^{-5}) + (5 \times 10^{-4}) = 5.3 \times 10^{-4}$$

$$(7 \times 10^5) + (3 \times 10^2) = 7.003 \times 10^5$$

6. (p. 280) Try these practice problems:

$$(4 \times 10^7) - (6.5 \times 10^7) = -2.5 \times 10^7$$

$$(5 \times 10^{-4}) - (2 \times 10^{-6}) = 4.98 \times 10^{-4}$$

$$(8.01 \times 10^6) - (5.234 \times 10^8) = -5.1539 \times 10^8$$

8. (p. 280) Try these practice problems:

$$(2 \times 10^{14})(3 \times 10^5) = 6 \times 10^{19}$$

$$(1.6 \times 10^{-4})(5 \times 10^2) = 8 \times 10^{-2}$$

$$(3.2 \times 10^{-4})(2 \times 10^{-4}) = 6.4 \times 10^{-8}$$

10. Try these practice problems:

$$(9 \times 10^4) \div (2 \times 10^2) = 4.5 \times 10^2$$

$$(8 \times 10^5) \div (2 \times 10^3) = 4 \times 10^2$$

$$(24 \times 10^8) \div (3 \times 10^{-4}) = 8 \times 10^{12}$$

$$(6 \times 10^{-5}) \div (2 \times 10^{-3}) = 3 \times 10^{-2}$$