Science And Measurement Worksheet

1. Complete the following table of equivalents.

    a) 369 mm   = _____ cm   g) 807 cm^3 = _____ ml

    b) 0.427 m   = _____ mm   h) 14.5965 l   = _____ cm^3

    c) 704 cm   = _____ m   i) 108 g   = _____ kg

    d) 615 cm   = _____ km   j) 0.823 g   = _____ mg

    e) 8.973 km   = _____ m   k) 0.0009390 kg   = _____ mg

    f) 2.46 ml   = _____ l   l) 125 ml water   = _____ g water

2. In the following, give the power of ten equivalent of the prefix, and give the prefix equivalent of the numerical value.

    a) centi- = _____   e) hecto- = _____   i) 10^{-2} = _____

    b) kilo- = _____   f) pico- = _____   j) 10^9 = _____

    c) micro- = _____   g) 10^{-9} = _____   k) 0.001 = _____

    d) mega- = _____   h) 10^{12} = _____   l) 0.1 = _____

3. How many significant figures are there in each of the following?

    a) 273.16 _____   e) 3,000,000 _____   i) 528$\bar{0}$ _____

    b) 186,000 _____   f) 24$\bar{0}$,000 _____   j) 0.070830 _____

    c) 707 _____   g) 0.00623 _____   k) 6.52 x 10^{-2} _____

    d) 10$\bar{0}$0 _____   h) 40.070 _____   l) 9.040 x 10^5 _____

4. In the following, convert the numbers in common notation to exponential notation, and convert numbers in exponential notation to common notation.

    a) 93,000,000 = _____   d) 2.997 x 10^{10} = _____

    b) 0.00019 = _____   e) 8.03 x 10^{-5} = _____

    c) 404.39 = _____   f) 4.5359 x 10^2 = _____

5. Give the order of magnitude of each of the following.

    a) 8.3 x 10^6 _____   d) 1.428 x 10^{-2} _____

    b) 2.75 x 10^4 _____   e) 7.793 x 10^{-8} _____

    c) 6.023 x 10^{23} _____   f) 4.99 x 10^{-11} _____