Chpt 2 rev 3
Physics

Perform the following conversions:

a) 0.0045 m = _____μm = _____mm = _____km

b) 123.5 cg = _____Mg = _____mg = _____g

c) 770 miles/hr = _____ m/s = _____ ft/sec

List the number of significant figures in each measurement:

d) 0.00100 m

e) 100.0 m

f) 100 m

g) 2 g

h) 0.002 g

i) 200.000 g

j) 0.00045 ml

k) 45.0045 ml

l) 45 ml

Perform the following operations to the appropriate number of sig. Figs.:

m) 65.023 g + 3.46 g + 5.1 g =

n) $65.3 \text{ g} / 4.5 \text{ cm}^3 =$

o) 0.0020 m/s x 1.10 s =

p) 456.23 cg – 217 cg =

q) $0.001 \text{ m}^3 / 270.0 \text{ m}^3 =$
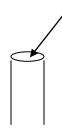
r) 345 m + 2.498 m =

s) $4.56 \times 10^4 \text{ m/s} \times 3.2 \times 10^7 \text{ s} =$

t) $4.56 \times 10^{-6} \text{ m} – 2.3 \times 10^{-7} \text{ m} =$

Perform the following Operations:

u) What is the cross-sectional area of a wire if its diameter is 5.56×10^{-2} mm?

v) What is the circumference of a circular running track that is 57.50 m across (diameter)?

Perform the following operations and list the uncertainty of each operation.

w) What is the volume of a basketball if its radius is 12.50 cm? ($V = 4/3 \ \pi r^3$)

x) What is the surface area of a plate if its radius is 6.5 cm? ($A = \pi r^2$)

y) What is the volume of a box if it is 2.3 cm by 5.6 cm by 3.8 cm?

z) The volume of a soda can that has a radius of 3.4 cm and a height of 12.4 cm?
   ($V = \pi r^2 h$)