

Postlab Questions of Unit 1:

9. Place the following numbers in scientific notation:

a) $457,000 = 4.57 \times 10^5$

b) $0.00007853 = 7.853 \times 10^{-5}$

c) $3000000078 = 3.000000078 \times 10^9$

d) $1000,000,000,000 = 1.0 \times 10^{12}$

10. Place the following numbers in conventional notation:

a) $4.57 \times 10^5 = 457,000$

b) $7.853 \times 10^{-5} = 0.00007853$

c) $3.0 \times 10^9 = 3,000,000,000$

d) $1.0 \times 10^{12} = 1,000,000,000,000$

11. Do the following conversions. Show your work.

a) $678 \mu\text{l} = ? \text{cl}$

$$6.78 \times 10^{-2} \text{ cl}$$

b) $0.000590 \text{ kg} = ? \text{ g}$

$$5.90 \times 10^{-1} \text{ g}$$

c) $4.78 \times 10^9 \text{ mm} = ? \text{ dm}$

$$4.78 \times 10^7 \text{ dm}$$

d) $7.853 \times 10^{-5} \text{ dag} = ? \mu\text{g}$

$$7.853 \times 10^2 \mu\text{g}$$

e) $6.5 \mu\text{m} = ? \text{ nm}$

$$6.5 \times 10^3 \text{ nm}$$

f) $750 \text{ mm} = ? \mu\text{m}$

$$7.50 \times 10^5 \mu\text{m}$$

g) $0.063 \text{ cm} = ? \text{ mm}$

$$6.3 \times 10^{-1} \text{ mm}$$

h) $1.80 \text{ m} = ? \text{ cm}$

$$1.80 \times 10^2 \text{ cm}$$

i) $0.053 \mu\text{m} = ? \text{ mm}$

$$\mathbf{5.3 \times 10^{-5} \text{ mm}}$$