

Science 1206 - Significant Figures

1. Indicate how many significant figures are there in each of the following numbers:

a. 23.2 cm _____

b. 32.8 m _____

c. 248.3 ml _____

d. 8.0335 cm _____

e. 804.58 kg _____

f. 0.0004898 mm _____

g. 14.00900 km _____

h. 307. l _____

i. 4500.0 km _____

j. 3.50×10^3 cm _____

k. 0.00300900870 mm _____

l. 1.604×10^{-4} m _____

2. Express the answer to each of the following calculations with the correct number of significant figures.

a. $1.2 \text{ cm} \times 1.3 \text{ cm} =$ _____

b. $32.88 \text{ m} + 4.388 \text{ m} =$ _____

c. $2.1 \text{ m} \times 1.8 \text{ m} =$ _____

d. $16.5 \text{ km}^2 \div 1.8 \text{ km} =$ _____

e. $3.0899 \text{ mm} \times 22.4 \text{ mm} =$ _____

f. $0.00826 \text{ cm}^2 \div 0.00033 \text{ cm} =$ _____

g. $10.00 \text{ m} + 84.767 \text{ m} =$ _____

h. $3.4500 \text{ cm}^2 \div 450. \text{ cm} =$ _____

i. $20.8 \text{ dm} \times 123.1 \text{ dm} =$ _____

j. $139.482 \text{ m}^2 \div 68.75 \text{ m} =$ _____

k. $5.00 \text{ l} - .023 \text{ l} =$ _____

l. $.0567 \text{ km}^2 \div 123.67 \text{ km} =$ _____

m. $4.8 \times 10^2 \text{ m} \times 2.101 \times 10^3 \text{ m} =$ _____

n. $9.13 \times 10^{-4} \text{ cm} \times 1.2 \times 10^{-3} \text{ cm} =$ _____

o. $2.8658 \times 10^{-8} \text{ m} \times 3.25 \times 10^{-6} \text{ m} =$ _____

p. $3.40 \times 10^{-1} \text{ g} \times 1.20 \times 10^5 \text{ g} =$ _____

q. $282.2 \text{ km} \times 3.8 \text{ km} =$ _____

r. $3.789056 \times 10^{12} \text{ g} \times 3.56 \times 10^{-5} \text{ g} =$ _____

s. $123.5 \text{ m} \times 12.7 \text{ m} \times 1.7 \text{ m} =$ _____

t. $6.023 \times 10^{14} \text{ mm}^2 \div 5.813 \times 10^{12} \text{ mm} =$ _____

u. $1.142 \times 10^{-8} \text{ mm}^2 \div 8.5 \times 10^{-4} \text{ mm} =$ _____

v. $0.630 \text{ g} \div 123.9 \text{ g/mol} =$ _____

w. $5.00 \text{ g} \div 256.90 \text{ g/mol} =$ _____