

Worksheet – Certainty and Precision Rules

Use your notes from last week to help you with this assignment.

1. For each of the following problems, give the answer in the proper number of sig figs.

a) $5.22 \text{ m} \times 82.7 \text{ m} = 431.694 \text{ m}^2$

b) $0.0322 \text{ cm} \times 6.5 \text{ cm} = 0.2093 \text{ cm}^2$

c) $4.08 \text{ g}^2 \div 0.061 \text{ g} = 66.885 \text{ g}$

d) $9.475 \text{ g} \div 12.05 \text{ cm}^3 = 0.7863 \text{ g/cm}^3$

e) $9.6781 \text{ g} \div 10.0 \text{ cm} = 0.96781\text{g/cm}^3$

f) $4.375 \text{ g} + 14.62 \text{ g} + 327.9 \text{ g} = 346.895 \text{ g}$

g) $2.5725 \text{ m} + 14.55 \text{ m} + 0.035 \text{ m} + 4.88 \text{ m} = 22.0375 \text{ m}$

h) $16.748 \text{ s} - 1.512 \text{ s} = 15.236 \text{ s}$

i) $6.0098 \text{ cm} - 2.51 \text{ cm} = 3.4998 \text{ cm}$

2. Perform the following calculations and round each answer to the correct number of sig figs.

a) $6.4 \text{ cm} \times 2.1 \text{ cm} =$

b) $21.33 \text{ m} \times 5.15 \text{ m} =$

c) $62 \text{ g} \div 1.62 \text{ cm} =$

d) $162.1 \text{ g} + 38.73 \text{ g} + 1.554 \text{ g} =$

e) $21.9 \text{ m} + 6.34 \text{ m} + 157 \text{ m} =$

f) $44.7 \text{ kg} - 2.7 \text{ kg} =$

g) $9.88 \text{ s} - 7.2 \text{ s} =$

h) $12000 \text{ ml} \times 4.5 \text{ ml} =$