Date: Name: Class:

Reinforcement

Chapter 1

BLM 1-2

Reporting Significant Digits in Calculations

Goal

Reinforce your understanding of significant digits.

Questions

1. State the number of significant figures in each of the following values:

(a) 3570

(b) 3.57×10^3

(c) 41.400

(d) 0.51

(e) 0.000 572

(f) 0.009 00

(g) 41.50×10^{-4}

(h) $0.007\ 160 \times 10^5$

(i) $1.234\ 00 \times 10^8$

(j) $0.000\ 410\ 0 \times 10^7$

2. Perform the following operations. Express your answer using the correct number of significant digits.

(a) $15.1 + 75.32$

(b) $178.904\ 56 - 125.805\ 5$

(c) $4.55 \times 10^{-5} - 3.1 \times 10^{-5}$

(d) $0.000\ 159 + 4.0074$

(e) $1.805 \times 10^4 + 5.89 \times 10^4$

(f) $0.000\ 817 - 0.000\ 048\ 1$

(g) $8.166 \times 10^5 - 7.819 \times 10^5$

(h) $45.128 + 8.501\ 87 - 42.18$

(i) $5.677 \times 10^{-6} + 7.785 \times 10^{-6}$

(j) $8.75 \times 10^{-9} + 6.1157 \times 10^{-9}$

(k) $1.99 \div 3.1$

(l) $1200.0 \div 3.0$

(m) $5.32 \times 10^{-4} \div 4.218 \times 10^{-8}$

(n) 45.32×2.3

(o) $0.024\ 00 \div 6.000$

(p) 12.4×0.30

(q) $(5.50 \times 10^8) \div (4 \times 10^5)$

(r) $7.4 \div 3$

(s) $4.75 \div 5$

(t) $2.5 \times 6.700 \div 0.891$