

1. How many sigfigs do each of the following measurements have?

- a. 1.25 kg 3 c. 11 s 2 e. 1.283 cm 4 g. 2000000 years 1
 b. 1255 kg 4 d. 150 m 2 f. 365.249 days 6 h. 17.25 L 4

2. In the space following each value below, put "M" if the value was likely obtained by a Measurement, or "C" if the value was probably determined by Counting.

- a. 4 comets C b. 45 seconds m c. 6.5 liters m d. 12 TV sets C e. 12 grams m

3. State the number of sigfigs in each of the following.

- a. 3570 3 c. 41.400 5 e. 0.000572 3 g. 4.150×10^{-4} 4 i. 1.234×10^8 4
 b. 17.505 5 d. 0.51 2 f. 0.00900 3 h. 7.160×10^5 4 j. 4100 2

4. Give the answer to the correct number of sigfigs.

- a. 12.5×0.50 6.3 e. $(6.40 \times 10^8)(5 \times 10^5)$ 3×10^{14} i. 4.75×5 20
 b. 0.15×0.0016 0.00024 f. $(4.37 \times 10^3) / 0.0085600$ 511000 j. $0.00001 / 0.1000$ 0.0001
 c. $40.0 / 30.0000$ 1.33 g. 51.3×3.940 202 k. $7.4 \div 3$ 2
 d. $2.5 \times 7.500 / 0.150$ 130 h. $(5.1 \times 10^{-5}) \div (6 \times 10^{-7})$ 90 l. 0.00043×0.005001 0.0000022

5. Give the answer to the correct number of sigfigs.

- a. $15.1 + 75.32$ 90.4 f. $0.0000481 - 0.000817$ -0.000769
 b. $178.90456 - 125.8055$ 53.0991 g. $7.819 \times 10^5 - 8.166 \times 10^4$ 7.002×10^5
 c. $4.55 \times 10^{-5} + 3.1 \times 10^{-5}$ 7.7×10^{-5} h. $45.128 + 8.50187 - 89.18$ -35.55
 d. $0.000159 + 4.0074$ 4.0076 i. $5.89 \times 10^{-8} + 7.785 \times 10^{-8}$ 1.37×10^{-7}

e. $1.805 \times 10^4 + 5.89 \times 10^2$

1.864×10^4

j. $8.975 \times 10^{-11} + 6.1157 \times 10^{-9}$

6.2055×10^{-9}

6. Give the answer to the correct number of sigfigs.

a. $7.95 + 0.583$

8.53

f. $45.9 - 15.0025$

30.9

b. $1.99 / 3.1$

0.64

g. 375.59×1.5

560

c. $4.15 + 1.582 + 0.0588 - 35.5$

-29.7

h. $5.1076 \times 10^{-3} - 1.584 \times 10^{-2} + 2.008 \times 10^{-3}$

8.72×10^{-3}

d. $1200.0 / 3.0$

4.0×10^2

i. $1252.7 - 9.4 \times 10^{-3}$

1252.7

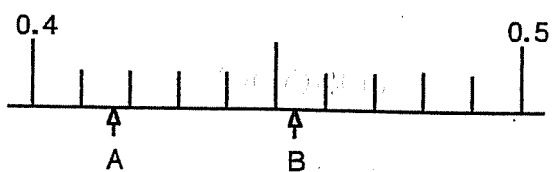
e. $5.31 \times 10^{-4} / 3.187 \times 10^{-8}$

16700

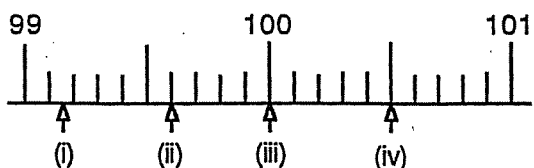
j. $0.02400 / 6.000$

0.004000

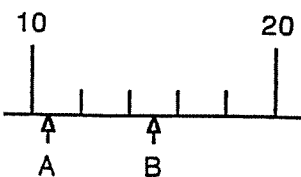
7. Read the following scales. Be sure to use the correct number of sigfigs.



A = $\frac{0.47}{}$
 B = $\frac{0.48}{}$



Reading at (i) = $\frac{99.5}{}$
 Reading at (ii) = $\frac{99.6}{}$
 Reading at (iii) = $\frac{100.0}{}$
 Reading at (iv) = $\frac{100.5}{}$



A = $\frac{10.9}{}$
 B = $\frac{15.0}{}$