

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.  $4.150 \times 10^{-4}$  4      i.  $1.234 \times 10^8$  4  
 b. 17.505 5      d. 0.51 2      f. 0.00900 3      h.  $7.160 \times 10^5$  4      j. 4100 2

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

- a.  $12.5 \times 0.50$  6.3      e.  $(6.40 \times 10^8)(5 \times 10^5)$   $3 \times 10^{14}$       i.  $4.75 \times 5$  20  
 b.  $0.15 \times 0.0016$  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.  $51.3 \times 3.940$  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.  $0.00043 \times 0.005001$  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.  $7.819 \times 10^5 - 8.166 \times 10^4$   $7.002 \times 10^5$   
 c.  $4.55 \times 10^{-5} + 3.1 \times 10^{-5}$   $7.7 \times 10^{-5}$       h.  $45.128 + 8.50187 - 89.18$  -35.55  
 d.  $0.000159 + 4.0074$  4.0076      i.  $5.89 \times 10^{-8} + 7.785 \times 10^{-8}$   $1.368 \times 10^{-7}$

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

$1.864 \times 10^4$

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

$6.2055 \times 10^{-9}$

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.  $375.59 \times 1.5$

$560$

c.  $4.15 + 1.582 + 0.0588 - 35.5$

$-29.7$

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

$8.72 \times 10^{-3}$

d.  $1200.0 / 3.0$

$4.0 \times 10^2$

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

$1252.7$

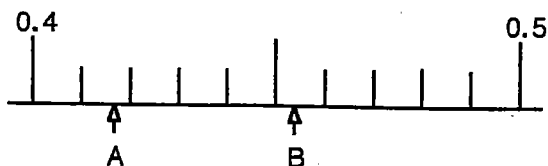
e.  $5.31 \times 10^{-4} / 3.187 \times 10^{-8}$

$16700$

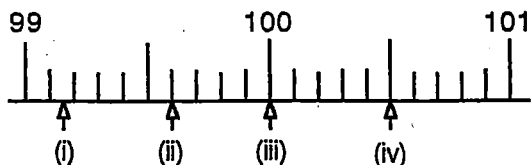
j.  $0.02400 / 6.000$

$0.004000$

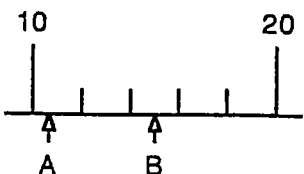
7. Read the following scales. Be sure to use the correct number of sigfigs.



A =  $\frac{0.417}{}$   
 B =  $\frac{0.454}{}$



Reading at (i) =  $\frac{99.15}{}$   
 Reading at (ii) =  $\frac{99.60}{}$   
 Reading at (iii) =  $\frac{100.00}{}$   
 Reading at (iv) =  $\frac{100.50}{}$



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