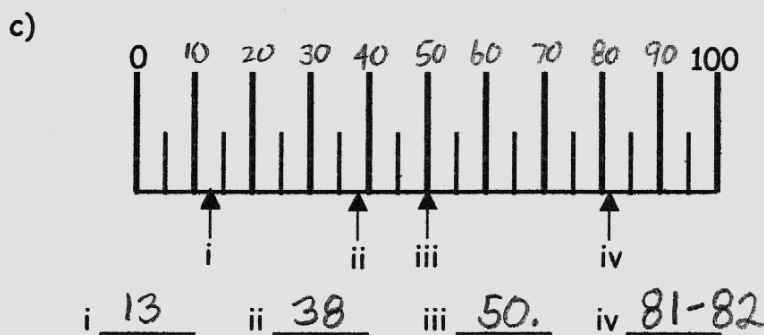
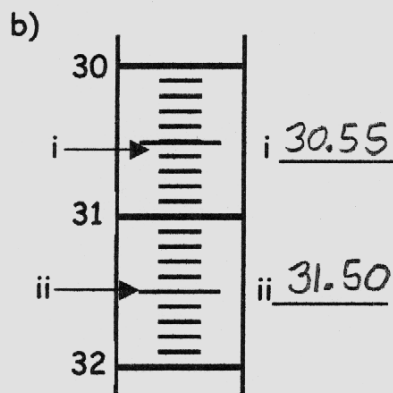
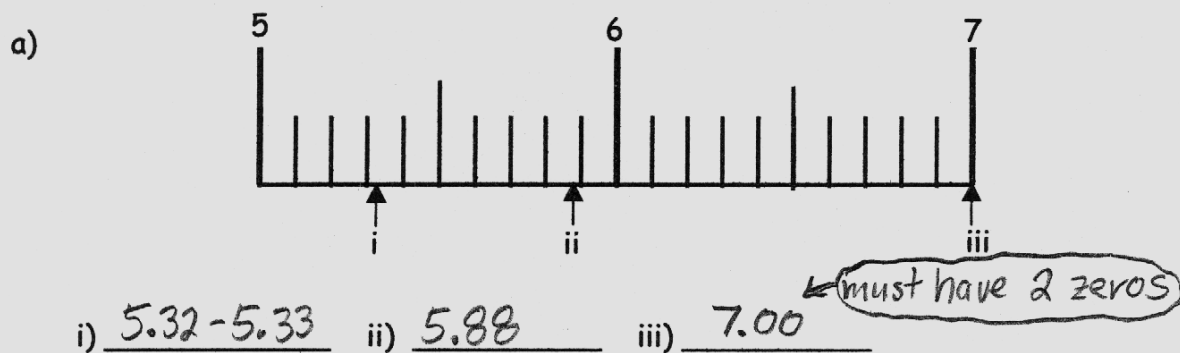


11. What is meant by the accuracy of a measurement? How close a reading is to an accepted standard.

12. On each of the following scales, determine the correct reading which the arrow is pointing to. The answer must be expressed in the number of significant digits which accurately reflects the precision of the instrument.



13. Determine the number of significant digits (figures) in each of the following numbers.

a)  $\checkmark\checkmark\checkmark\checkmark$  45.002 5    b)  $\checkmark\checkmark\checkmark$   $3.400 \times 10^{-4}$  4    c) 0.000003 1    d)  $\checkmark$  3 000 1

14. Express each of the following numbers to 2 significant digits (figures).

a) 45 670 <sup>(46000)</sup>  $4.6 \times 10^4$     b) 0.000 034 48 <sup>(0.000 034)</sup>  $3.4 \times 10^{-5}$     c) 3 000 000  $3.0 \times 10^6$   
d) 23.0954 23    e)  $4.56219 \times 10^3$  <sup>(4600)</sup>  $4.6 \times 10^3$     f) 9 9.0