

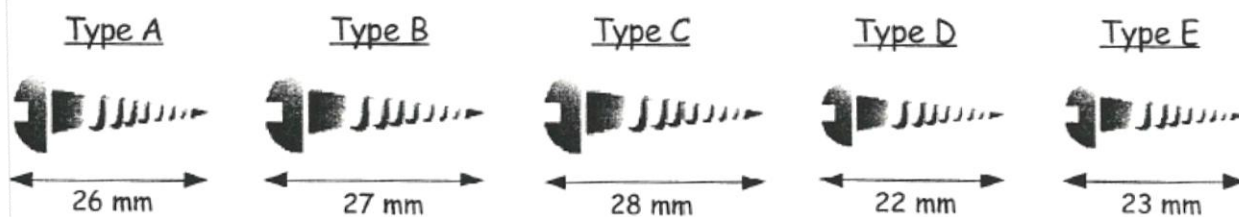


1. For each of the following tolerances, write down the minimum and maximum allowed.

- (a)  $(10 \pm 1)$  cm      (b)  $(15 \pm 2)$  mm      (c)  $(100 \pm 4)$  kg      (d)  $(250 \pm 20)$  km  
 (e)  $(12 \pm 0.2)$  cm      (f)  $(3 \pm 0.1)$  m      (g)  $(5.5 \pm 0.2)$  g      (h)  $(0.5 \pm 0.01)$  cm

2. A joiner needs a type of wood screw with length  $(25 \pm 2)$  mm to complete a cabinet.

- (a) Write down the min. and max. length the joiner requires.  
 (b) State which of these wood screws he can use for the cabinet.



3. The spark plug gap for a Rover car is  $(1.00 \pm 0.05)$  mm.

- (a) Write the minimum and maximum distance for the gap.  
 (b) State which of these gaps is not acceptable.

- (i) 1.03 mm      (ii) 1.1 mm      (iii) 1.04 mm  
 (iv) 0.6 mm      (v) 0.9 mm      (vi) 0.99 mm.

4. The dosage of a special vaccine must be between 5.3 ml and 5.4 ml.  
 Write this in tolerance form.

5. The temperature in Majorca one day ranged from a minimum of  $68^{\circ}\text{F}$  to a maximum of  $102^{\circ}\text{F}$ .  
 Write this in tolerance form.

6. Write each of the following in tolerance form :-

- (a) min = 20 m      (b) min = 150 cm      (c) min = 15 kg      (d) min = 100 mm  
 max = 22 m      max = 160 cm      max = 16 kg      max = 106 mm  
 (e) min = 5 g      (f) min = 0.5 ml      (g) min = 0.1 cm      (h) min = 10 cm  
 max = 5.2 g      max = 0.7 ml      max = 0.12 cm      max = 10.01 cm.

7. A car has its idle speed set at a minimum of 775 revs/min and a maximum of 875 revs/min.  
 Write this in tolerance form.