

Board – ICSE

Class – 7<sup>th</sup>

Topic – Triangles

1. Fill in the banks:

- Triangle is formed by joining three \_\_\_\_\_ points.
- A point where two sides of a triangle meet is known as \_\_\_\_\_ of a triangle.
- Each angle of an equilateral triangle is of \_\_\_\_\_ measure.
- A \_\_\_\_\_ triangle has one angle of  $90^\circ$ .
- A triangle has \_\_\_\_\_ vertices and \_\_\_\_\_ sides.
- In an obtuse triangle, the remaining two angles are \_\_\_\_\_
- The sum of the measure of three angles of a triangle is \_\_\_\_\_
- A triangle whose two sides are of equal length is known as \_\_\_\_\_ triangle.

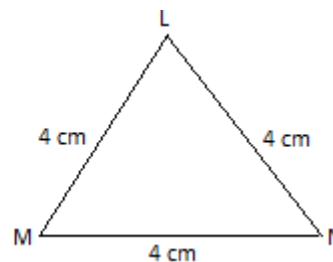
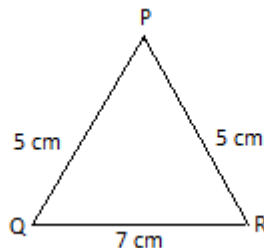
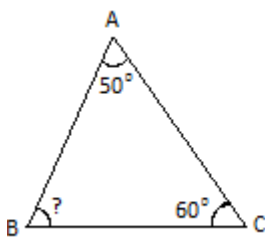
2. Which of the following cannot be the measure of three angles of a triangle?

- $\angle A = 60^\circ, \angle B = 60^\circ, \angle C = 60^\circ$
- $\angle A = 70^\circ, \angle B = 20^\circ, \angle C = 100^\circ$
- $\angle A = 90^\circ, \angle B = 90^\circ, \angle C = 90^\circ$
- $\angle A = 72^\circ, \angle B = 30^\circ, \angle C = 78^\circ$

3. Find the measure of the third angle of a triangle:

- $\angle A = 60^\circ, \angle B = 60^\circ$
- $\angle A = 70^\circ, \angle B = 80^\circ$
- $\angle A = 90^\circ, \angle B = 10^\circ$
- $\angle A = 95^\circ, \angle B = 25^\circ$

4. Look at the triangle given below and answer the following:



- What is the measure of  $\Delta ABC$ ?
- What type of triangle  $\Delta ABC$ ?

- (iii) What type of triangle  $\Delta PQR$ ?  
(vi) What type of triangle  $\Delta LMN$ ?  
(v) What is the measure of  $\angle L$ ?
5. Measures of two angles of a triangle are  $65^\circ$  and  $40^\circ$ . Find the measure of its third angle.  
6. In a right triangle, if one angle is  $50^\circ$ , find its third angle.  
7. Is the construction of a triangle possible in which the lengths of sides are 5 cm, 4 cm and 9 cm?  
8. Construct a triangle ABC in which  $BC = 6$  cm,  $CA = 5$  cm and  $AB = 4$  cm.  
9. Construct a triangle PQR in which  $PQ = 5.8$  cm,  $QR = 6.5$  cm,  $PR = 4.5$  cm.  
10. Construct a triangle LMN in which  $LM = LN = 5.5$  cm,  $MN = 7$  cm.  
11. Construct a triangle STU in which  $\angle T = 60^\circ$ ,  $\angle U = 70^\circ$  and  $TU = 7.5$  cm.  
12. Construct a right triangle ABC in which  $\angle C = 90^\circ$  and  $\angle B = 45^\circ$ ,  $CB = 5$  cm.

## ANSWER

1. (i) non-collinear                      (ii) vertex                      (iii) equal                      (iv) right  
(v) three, three                      (vi) acute                      (vii)  $180^\circ$                       (viii) isosceles triangle
2. (ii) (iii)
3. (i)  $60^\circ$                       (ii)  $30^\circ$                       (iii)  $80^\circ$                       (iv)  $60^\circ$
4. (i)  $70^\circ$   
(ii) acute angled triangle  
  
(iii) isosceles triangle  
(vi) equilateral triangle  
(v)  $60^\circ$
5.  $75^\circ$   
6.  $40^\circ$   
7. No triangle possible with sides 5 cm, 4 cm and 9 cm.