

Board – ICSE

Class – 7th

Topic – Triangles

1. Fill in the banks:

- (i) Triangle is formed by joining three _____ points.
- (ii) A point where two sides of a triangle meet is known as _____ of a triangle.
- (iii) Each angle of an equilateral triangle is of _____ measure.
- (iv) A _____ triangle has one angle of 90° .
- (v) A triangle has _____ vertices and _____ sides.
- (vi) In an obtuse triangle, the remaining two angles are _____
- (vii) The sum of the measure of three angles of a triangle is _____
- (viii) A triangle whose two sides are of equal length is known as _____ triangle.

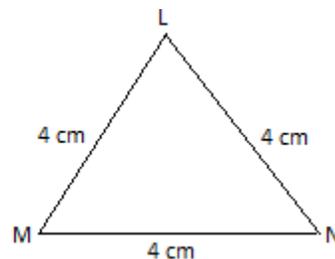
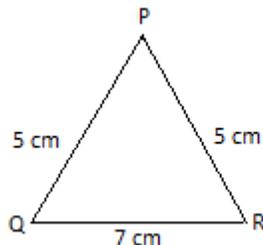
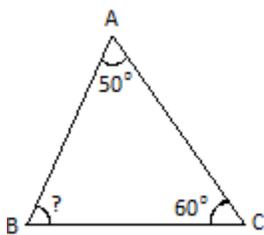
2. Which of the following cannot be the measure of three angles of a triangle?

- (i) $\angle A = 60^\circ, \angle B = 60^\circ, \angle C = 60^\circ$
- (ii) $\angle A = 70^\circ, \angle B = 20^\circ, \angle C = 100^\circ$
- (iii) $\angle A = 90^\circ, \angle B = 90^\circ, \angle C = 90^\circ$
- (iv) $\angle A = 72^\circ, \angle B = 30^\circ, \angle C = 78^\circ$

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

- (i) $\angle A = 60^\circ, \angle B = 60^\circ$
- (ii) $\angle A = 70^\circ, \angle B = 80^\circ$
- (iii) $\angle A = 90^\circ, \angle B = 10^\circ$
- (iv) $\angle A = 95^\circ, \angle B = 25^\circ$

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



- (i) What is the measure of ΔABC ?
- (ii) What type of triangle ΔABC ?

- (iii) What type of triangle ΔPQR ?
(vi) What type of triangle ΔLMN ?
(v) What is the measure of $\angle L$?
5. Measures of two angles of a triangle are 65° and 40° . Find the measure of its third angle.
6. In a right triangle, if one angle is 50° , 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° (viii) isosceles triangle
2. (ii) (iii)
3. (i) 60° (ii) 30° (iii) 80° (iv) 60°
4. (i) 70°
(ii) acute angled triangle

(iii) isosceles triangle
(vi) equilateral triangle
(v) 60°
5. 75°
6. 40°
7. No triangle possible with sides 5 cm, 4 cm and 9 cm.