

Mathematics - Worksheet

Class – VII

Chapter – Triangle and its properties

**Very short answer type questions:**

Q 1. Classify the following triangles according to their angles.

- a)  $75^\circ, 45^\circ, 60^\circ$
- b)  $90^\circ, 30^\circ, 60^\circ$
- c)  $60^\circ, 60^\circ, 60^\circ$
- d)  $110^\circ, 35^\circ, 35^\circ$

Q 2. Classify the following triangles according to their sides:

- a) 7 cm , 5 cm , 6.5 cm
- b) 4 cm , 4 cm , 7 cm
- c) 3.8 cm , 4.9 cm , 3.8 cm
- d) 5.2 cm , 5.2 cm , 5.2 cm

Q 3. In an obtuse angled triangle, how many angles are obtuse?

Q 4. In an acute angled triangle, how many angles are acute?

Q 5. Write the names for:

- 1) The longest side of a right angle triangle.
- 2) The other name for the equilateral triangle.

**Short answers type questions:**

Q 6. One of the base angles in an isosceles triangle is  $35^\circ$ . Find the measure of the third angle. ( $110^\circ$ )

Q 7. The three angles of a triangle are in the ratio of 6: 7: 5. Find the angles ( $60^\circ, 70^\circ, 50^\circ$ )

Q 8. Is it possible to draw a triangle with sides?

- a) 3 cm, 4 cm, 8 cm.
- b) 4 cm, 6 cm, 10 cm.

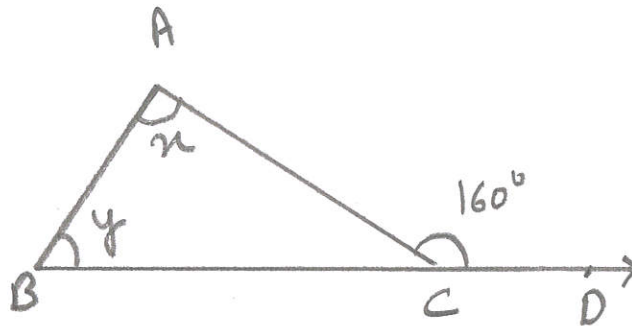
Q 9. In a triangle ABC, which is the longest side if:

- a)  $\angle A$  is a right angle.
- b)  $\angle C$  is a right angle.

Q 10. In a right angles triangle, two acute angles are in ration of 4: 5. Find the acute angles of the triangle. ( $40^\circ, 50^\circ$ )

Long Answers type questions

Q 11. In the following figures,  $x:y = 5:3$  and  $\angle ACD = 160^\circ$ , find the values of  $x, y$  and  $z$ . ( $100^\circ, 60^\circ, 20^\circ$ )



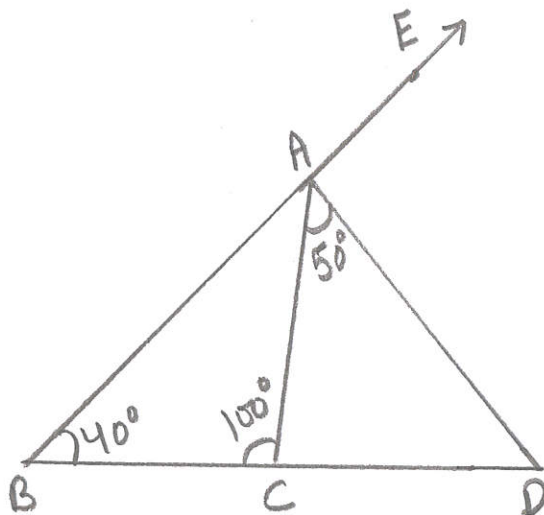
Q 12. One of the exterior angle of the triangle is  $80^\circ$  and interior opposite angles are equal to each other. Find the measure of each of these two equal angles of the triangle. (40, 40)

Q 13. The length of the diagonal of a rectangular garden is 34 m. If its longer side measures 30 m, find the length of the shorter side of the garden. (16 m).

Q 14. A ladder 10 m long is leaning against a wall. The foot of the ladder is 8 m away from the wall. Find the height up to which the ladder reaches the wall.

Q 15. In the given figure, find:

- 1)  $\angle ACD$
- 2)  $\angle ADC$
- 3)  $\angle DAE$



( $80^\circ, 150^\circ, 130^\circ$ )