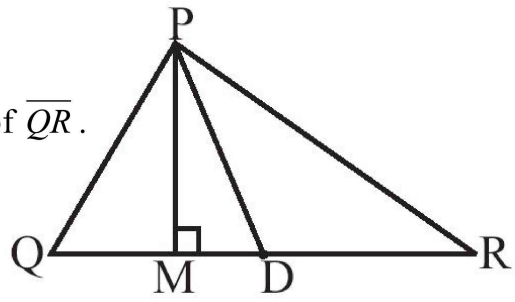
PRACTICE QUESTIONS
CLASS – VII: CHAPTER – 6
TRIANGLES AND ITS PROPERTIES

1. Write the six elements (i.e., the 3 sides and the 3 angles) of .ABC.

2. Write the:
(i) Side opposite to the vertex Q of ΔPQR
(ii) Angle opposite to the side LM of ΔLMN
(iii) Vertex opposite to the side RT of ΔRST

3. In ΔPQR given in the adjoining figure, D is the mid-point of $\overline{QR}$.



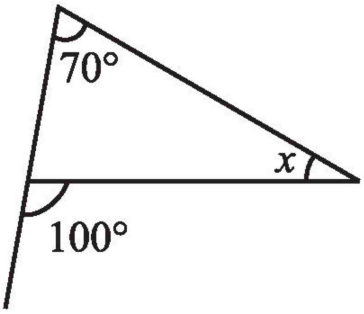
$\overline{PM}$ is _____
$\overline{PD}$ is _____
Is QM = MR?

4. Prove that "An exterior angle of a triangle is equal to the sum of its interior opposite angles".

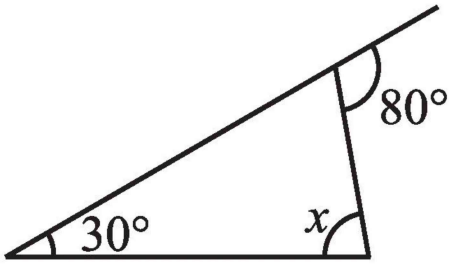
5. An exterior angle of a triangle is of measure 70º and one of its interior opposite angles is of measure 25º. Find the measure of the other interior opposite angle.

6. The two interior opposite angles of an exterior angle of a triangle are 60º and 80º. Find the measure of the exterior angle.

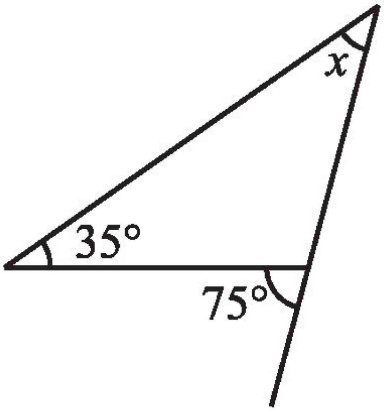
7. Find the value of x in the adjoining figure.



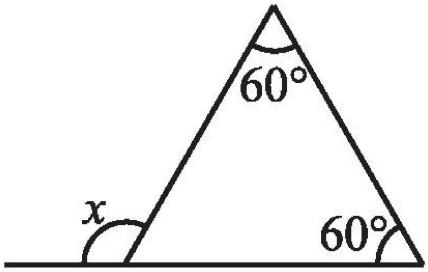
8. Find the value of x in the adjoining figure.



9. Find the value of x in the below figure.



10. Find the value of x in the adjoining figure.

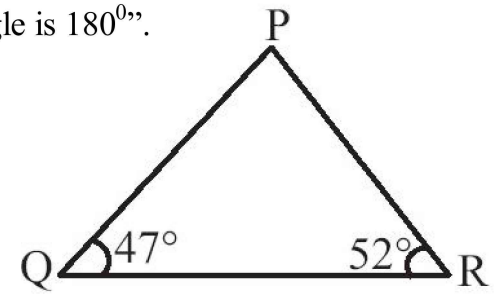


11. An exterior angle of a triangle is of measure 113º and one of its interior opposite angles is of measure 25º. Find the measure of the other interior opposite angle.

12. The two interior opposite angles of an exterior angle of a triangle are 49º and 41º. Find the measure of the exterior angle.

13. Prove that "The sum of all interior angles of a triangle is 180^0".

14. In the given figure, find m∠P.

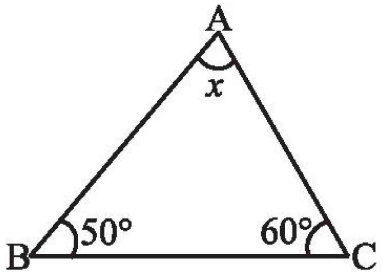


15. Two angles of a triangle are 30º and 80º. Find the third angle.

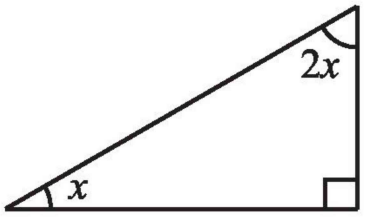
16. One of the angles of a triangle is 80º and the other two angles are equal. Find the measure of each of the equal angles.

17. The three angles of a triangle are in the ratio 1:2:1. Find all the angles of the triangle.

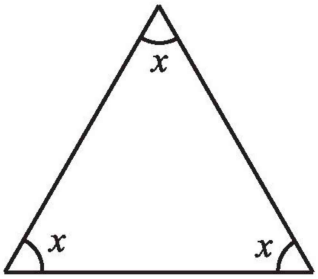
18. Find the value of the unknown *x* in the below figure.



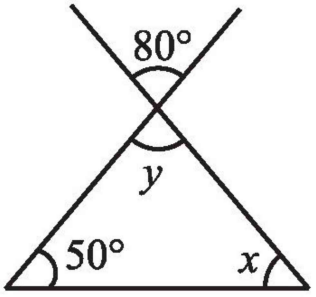
19. Find the value of the unknown *x* in the adjoining figure.



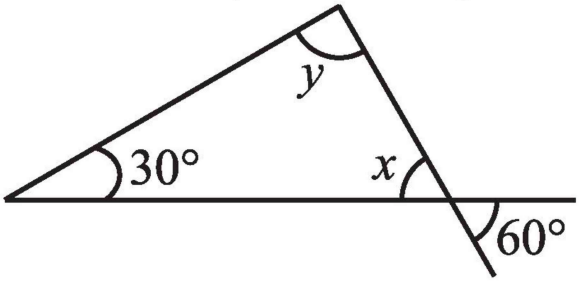
20. Find the value of the unknown *x* in the below figure.



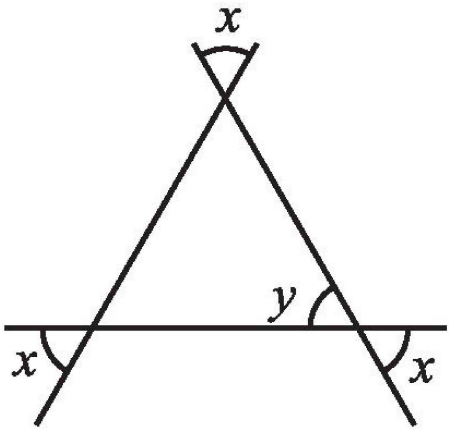
21. Find the value of *x* and *y* in the adjoining figure.



22. Find the value of *x* and *y* in the below figure.



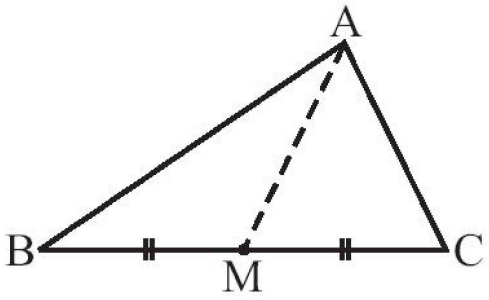
23. Find the value of *x* and *y* in the adjoining figure.



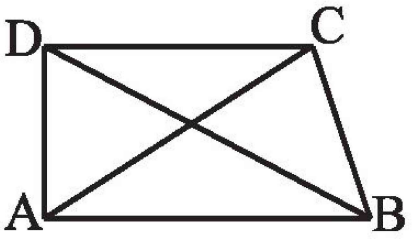
24. Is there a triangle whose sides have lengths 10.2 cm, 5.8 cm and 4.5 cm?

25. The lengths of two sides of a triangle are 6 cm and 8 cm. Between which two numbers can length of the third side fall?

26. AM is a median of a triangle ABC. Is AB + BC + CA > 2 AM?
(Consider the sides of triangles ABM and AMC.)



27. ABCD is a quadrilateral. Is AB + BC + CD + DA > AC + BD?



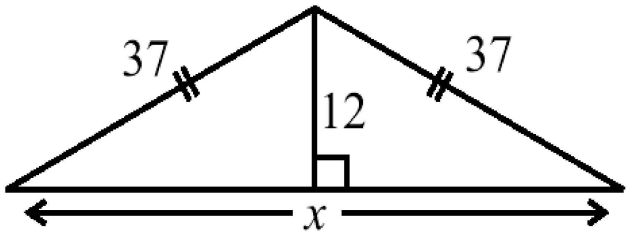
28. ABCD is quadrilateral. Is AB + BC + CD + DA < 2 (AC + BD)?

29. The lengths of two sides of a triangle are 12 cm and 15 cm. Between what two measures should the length of the third side fall?

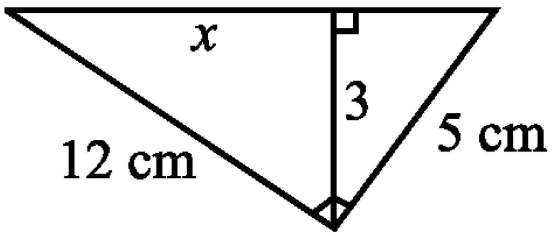
30. Determine whether the triangle whose lengths of sides are 3 cm, 4 cm, 5 cm is a right-angled triangle.

31. ΔABC is right-angled at C. If AC = 5 cm and BC = 12 cm find the length of AB.

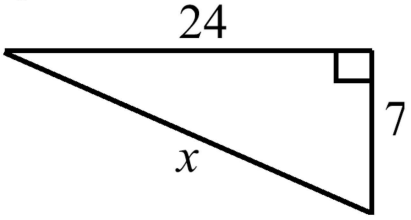
32. Find the value of x in the below figure.



33. Find the value of x in the adjoining figure.



34. Find the value of x in the below figure.



35. PQR is a triangle right angled at P. If PQ = 10 cm and PR = 24 cm, find QR.

36. ABC is a triangle right angled at C. If AB = 25 cm and AC = 7 cm, find BC.

37. A 15 m long ladder reached a window 12 m high from the ground on placing it against a wall at a distance *a*. Find the distance of the foot of the ladder from the wall.

38. A tree is broken at a height of 5 m from the ground and its top touches the ground at a distance of 12 m from the base of the tree. Find the original height of the tree.

39. Find the perimeter of the rectangle whose length is 40 cm and a diagonal is 41 cm.

40. The diagonals of a rhombus measure 16 cm and 30 cm. Find its perimeter.