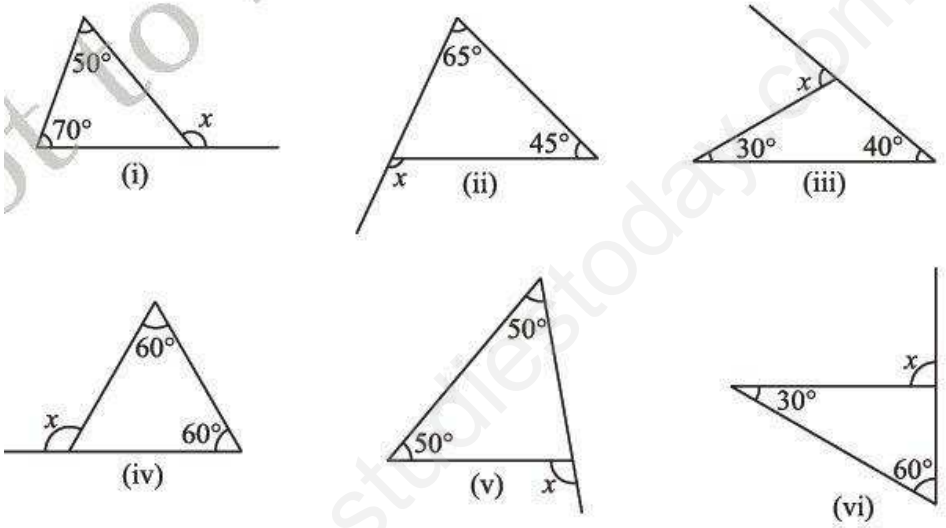
Triangles

Math Revision Worksheet Class VII

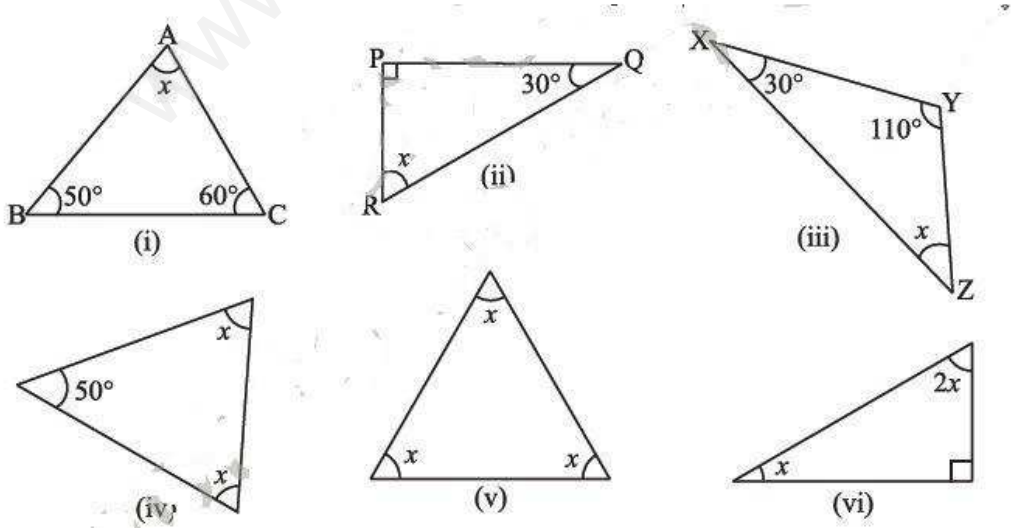
2 mark questions

Directions: Completely solve all the questions. All the calculations are to be shown in the solution. Also draw the diagrams when you are solving.

1. Find the value of the unknown exterior angle x in the following diagrams:



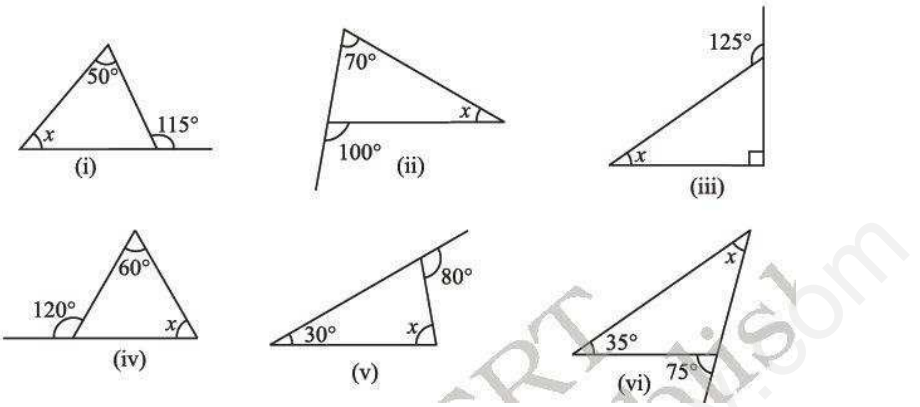
2. Find the value of the unknown x in the following diagrams:



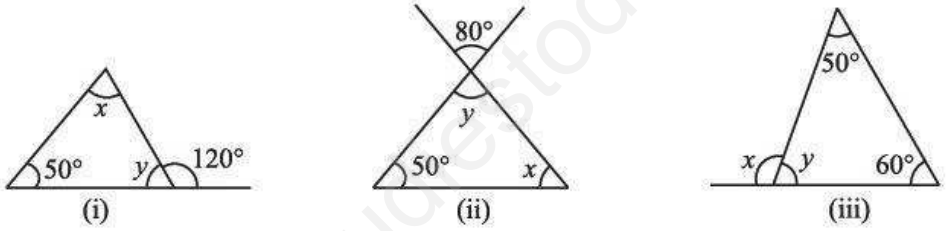
3 mark questions

Directions: Completely solve all the questions. All the calculations are to be shown in the solution. Also draw the diagram if it is given in the question.

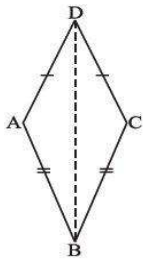
3. **Find the value of x in the following diagrams:**



4. Find the values of x and y in the following diagrams:



5. PQR is a triangle right angled at P. If PQ = 10 cm and PR = 24 cm, find QR.
6. ABC is a triangle right angled at C. If AB = 25 cm and AC = 7 cm, find BC.
7. In the given figure, AD = CD and AB = CB .



(i) State the three pairs of equal parts in ΔABD and ΔCBD.
(ii) Is ΔABD ≅ ΔCBD? Why or why not?
(iii) Does BD bisect ∠ABC? Give reasons.

8. In ΔABC, ∠A = 30° , ∠B = 40° and ∠C = 110°
In ΔPQR, ∠P = 30° , ∠Q = 40° and ∠R = 110°
A student says that ΔABC ≅ ΔPQR by AAA congruence criterion. Is he justified? Why or why not?

5 mark questions

Directions: Completely solve all the questions. All the calculations are to be shown in the solution. Also draw the diagram if it is given in the question or is asked in the question.

9. 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.
10. 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.
11. Find the perimeter of the rectangle whose length is 40 cm and a diagonal is 41 cm.
12. The diagonals of a rhombus measure 16 cm and 30 cm. Find its perimeter.
13. Explain, why ΔABC ≅ ΔFED?