

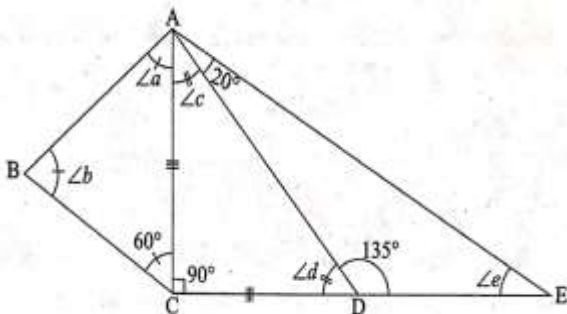
## Maths Class – 7 Triangles and their Properties -1

### Points to Remember:

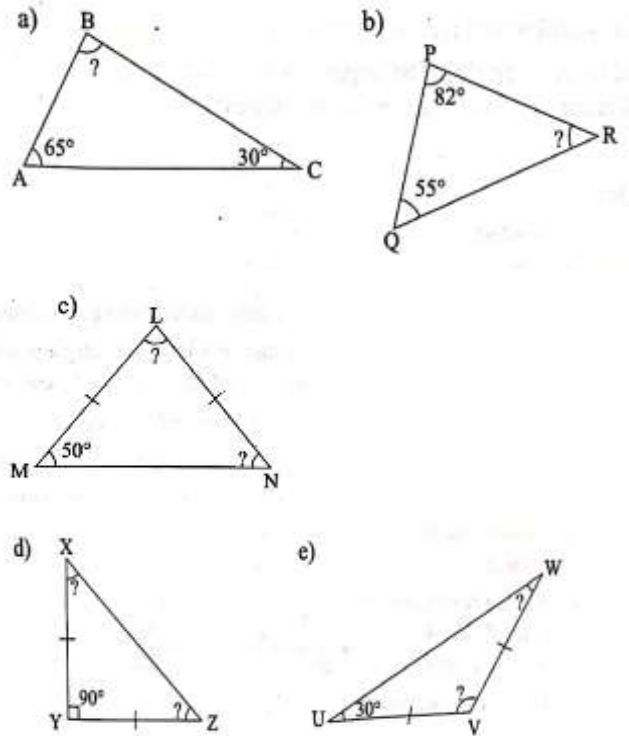
- ♣ A closed figure of three line segments is called triangle.
- ♣ Sum of angles of a triangle is  $180^\circ$ .
- ♣ Exterior angle of a triangle is equal to sum of two interior opposite angles.
- ♣ Sum of the two sides of triangle is greater than Third side
- ♣ Angle opposite to equal side of triangle are equal.
- ♣ Angle opposite to longer side of triangle is the greatest.
- ♣ A line segment that connect a vertex to the mid-point of its opposite side is called Median.
- ♣ A triangle has three median. A common point through which all median passes is called centroid.
- ♣ A perpendicular line drawn from vertex to opposite side of triangle is called Altitude. The point where all three altitude meet is called orthocenter.
- ♣ • The sum of squares of the legs of a right-angled triangle is equal to the square of its hypotenuse. This is called the Pythagoras property.
- ♣ Three natural numbers that hold Pythagoras property are called Pythagorean triplets.

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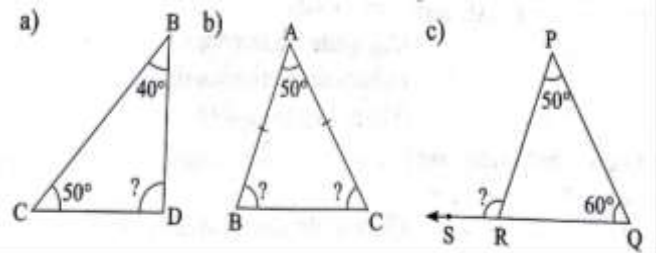
1. Prove that sum of angles of a triangle is  $180^\circ$ .
2. Prove that exterior angle of a triangle is equal to sum of two interior opposite angles.
3. Find the missing angles of triangle.



Q.4 Find the measure of missing angles of triangle.



5. Find the missing angles for each of triangles.



6. The ratio of the interior angles of triangle is 3:2 and their opposite exterior angle is  $150^\circ$ . What is the measure of each interior angles?

7. Find the value of x in each fig.

