Exercise 16B

Q6

Answer :

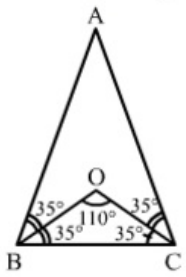
Correct option: (c)

A triangle having sides of different lengths is called a scalene triangle.

Q7

Answer :

Correct option: (a)



In the isosceles ABC, the bisectors of ∠B and ∠C meet at point O.

Since the triangle is isosceles, the angles opposite to the equal sides are equal.

$\angle B = \angle C$

$\therefore \angle A + \angle B + \angle C = 180^\circ$

$\Rightarrow 40^\circ + 2\angle B = 180^\circ$

$\Rightarrow 2\angle B = 140^\circ$

$\Rightarrow \angle B = 70^\circ$

Bisectors of an angle divide the angle into two equal angles.

So, in ΔBOC:

$\angle OBC = 35^\circ$ and $\angle OCB = 35^\circ$

$\angle BOC + \angle OBC + \angle OCB = 180^\circ$

$\Rightarrow \angle BOC + 35^\circ + 35^\circ = 180^\circ$

$\Rightarrow \angle BOC = 180^\circ - 70^\circ$

$\Rightarrow \angle BOC = 110^\circ$

Q8

Answer :

Correct option: (b)

The sides of a triangle are in the ratio 3:2:5.

Let the lengths of the sides of the triangle be (3x), (2x), (5x).

We know:

Sum of the lengths of the sides of a triangle = Perimeter

(3x) + (2x) + (5x) = 30

$\Rightarrow 10x = 30$

$\Rightarrow x = \frac{30}{10}$

$\Rightarrow x = 3$

First side = 3x = 9 cm

Second side = 2x = 6 cm

Third side = 5x = 15 cm

The length of the longest side is 15 cm.

Q9

Answer :

Correct option: (d)

Two angles of a triangle measure 30° and 25°, respectively.

Let the third angle be x.

$x + 30^o + 25^o = 180^o$

$x = 180^o - 55^o$

$x = 125^o$

Q10

Answer :

Correct option: (c)

Each angle of an equilateral triangle measures 60^o.

Q11

Answer :

Correct option: (c)

Point P lies on ΔABC.

********** END **********