Triangles and Its Angles Ex 9.1 Q4

Answer :

Let the angles of a triangle are x°, $(x+10)^\circ$ and $(x+20)^\circ$. [Since, the difference between two consceutive angles is 10°]

∴ x+x+10+x+20=180 Sum of the three angles of a triangle is 180°⇒3x+30=180⇒3x=150⇒x=50

Therefore, the angles of the given triangle are 50°, (50 + 10)° and (50 + 20)° i.e. 50°, 60° and 70°.

Triangles and Its Angles Ex 9.1 Q5

Answer :

Let the two equal angles are x°, then the third angle will be $(x + 30)$°.

∴ x+x+x+30=180 Sum of the three angles of a triangle is 180°⇒3x+30=180⇒3x=150⇒x=50

Therefore, the angles of the given triangle are 50°, 50° and 80°.

Triangles and Its Angles Ex 9.1 Q6

Answer :

Let ABC be a triangle such that

$\angle A = \angle B + \angle C$ [Since, one angle is sum of the other two]

$\therefore \angle A + \angle B + \angle C = 180^\circ$ [Sum of the three angles of a triangle is 180°]

$\Rightarrow \angle A + \angle A = 180^\circ$

$\Rightarrow 2\angle A = 180^\circ$

$\Rightarrow \angle A = 90^\circ$

Hence, the given triangle is a right angled triangle.

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