



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 consecutive angles is 10°]

$\therefore x+x+10+x+20=180$ Sum of the three angles of a triangle is $180^\circ \Rightarrow 3x+30=180 \Rightarrow 3x=150 \Rightarrow x=50$
Therefore, the angles of the given triangle are 50° , $(50+10)^\circ$ and $(50+20)^\circ$ 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 $(x+30)^\circ$.

$\therefore x+x+x+30=180$ Sum of the three angles of a triangle is $180^\circ \Rightarrow 3x+30=180 \Rightarrow 3x=150 \Rightarrow x=50$
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.

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