Under CSR Support by ipca | Foundation

missiongyan LET'S LEARN TOGETHER



CLASS – 9

MATHEMATICS

Chapter – 7

Triangles

Part –10

Exercise 7.2 (7 to 8)

Vikas Saini

Under CSR Support by ipca | Foundation

missiongyan LET'S LEARN TOGETHER

7. ABC is a right angled triangle in which $\angle A = 90°$ and $AB = AC$. Find $\angle B$ and $\angle C$.

Given :→

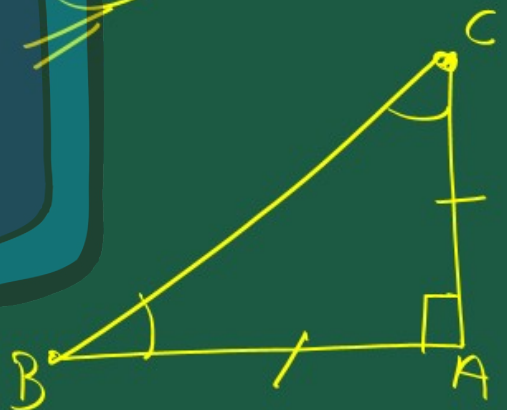
ABC is rt angle Δ

S.t $\angle A = 90$

$AB = AC$

To find → $\angle B$

$\angle C$



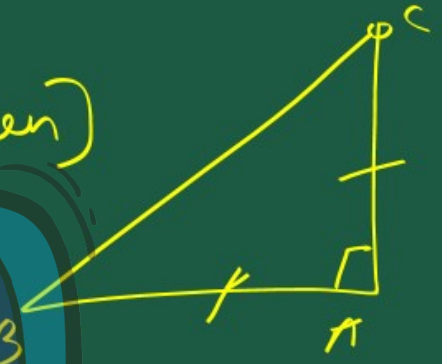
Under CSR Support by ipca | Foundation

missiongyan LET'S LEARN TOGETHER

In $\triangle ABC$,

$AB = AC$ [Given]

$\angle B = \angle C$



[$\because$ iyopp. Sides of $\triangle$ are equal then angles opp. to them are also equal]

Under CSR Support by ipca | Foundation

missiongyan LET'S LEARN TOGETHER

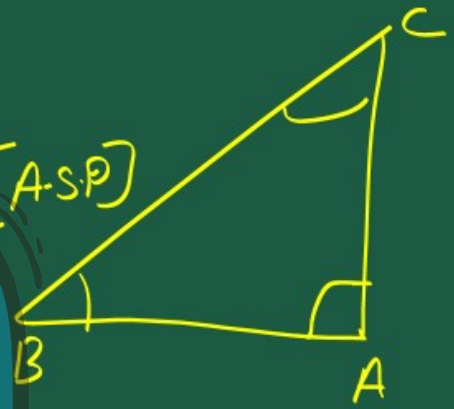
In $\triangle ABC$,

$\angle A + \angle B + \angle C = 180$ [A.S.P]

$90^\circ + \angle B + \angle C = 180$

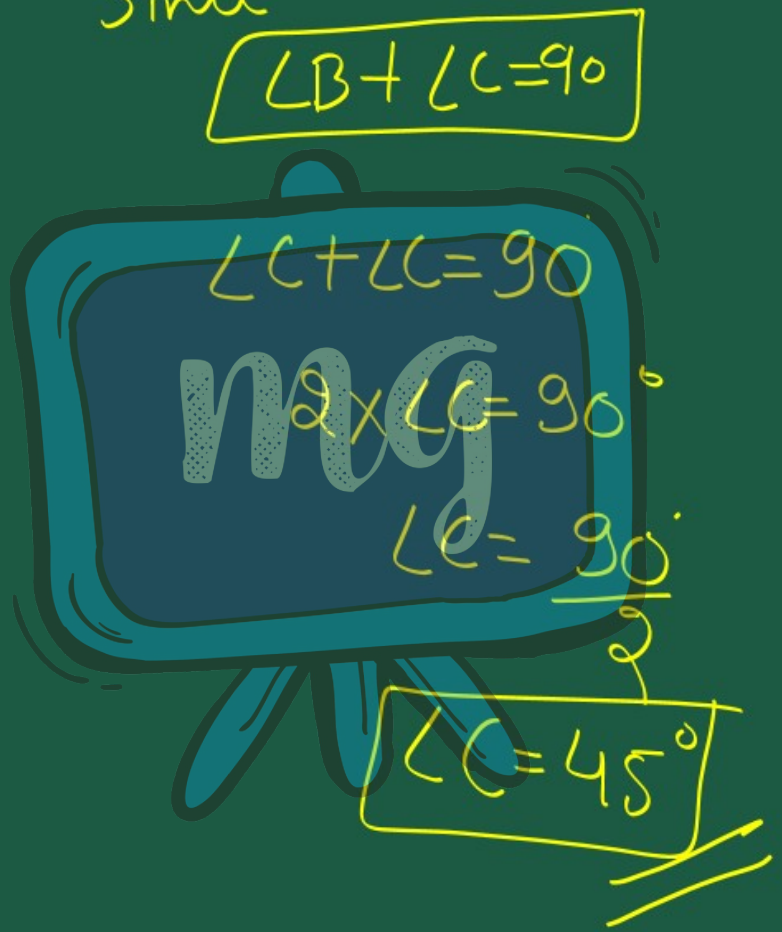
$\angle B + \angle C = 180 - 90$

$\angle B + \angle C = 90^\circ$



Under CSR Support by ipca | Foundation

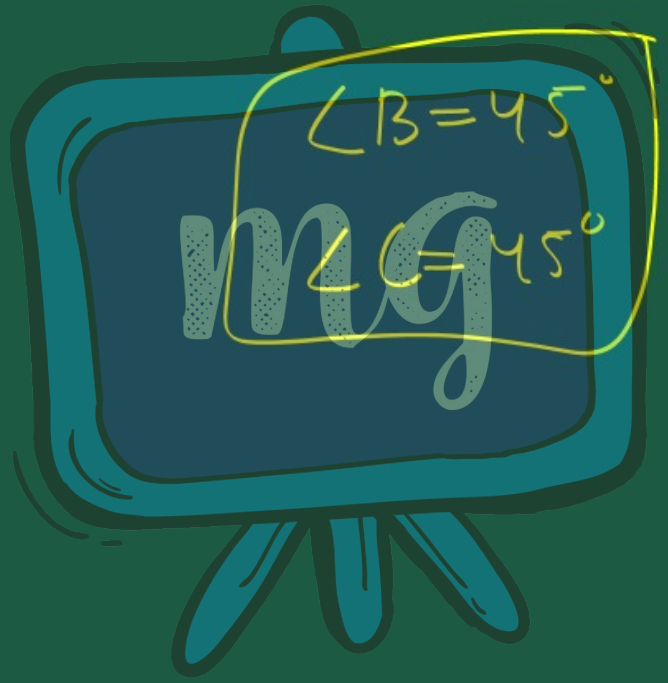
missiongyan LET'S LEARN TOGETHER



Under CSR Support by
ipca | Foundation

missiongyan
LET'S LEARN TOGETHER

$\angle B = \angle C$



Under CSR Support by ipca | Foundation

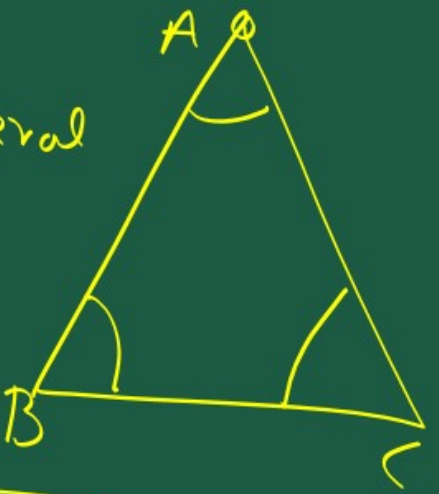
missiongyan LET'S LEARN TOGETHER

8. Show that the angles of an equilateral triangle are 60° each.

Given: $\triangle ABC$ is equilateral Δ.

So, $AB = BC = AC$

$\angle A = \angle B = \angle C$

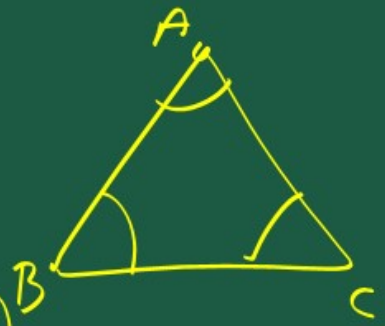


To prove: $\angle A = \angle B = \angle C = 60°$

Under CSR Support by ipca | Foundation

missiongyan LET'S LEARN TOGETHER

Sol: In $\triangle ABC$,



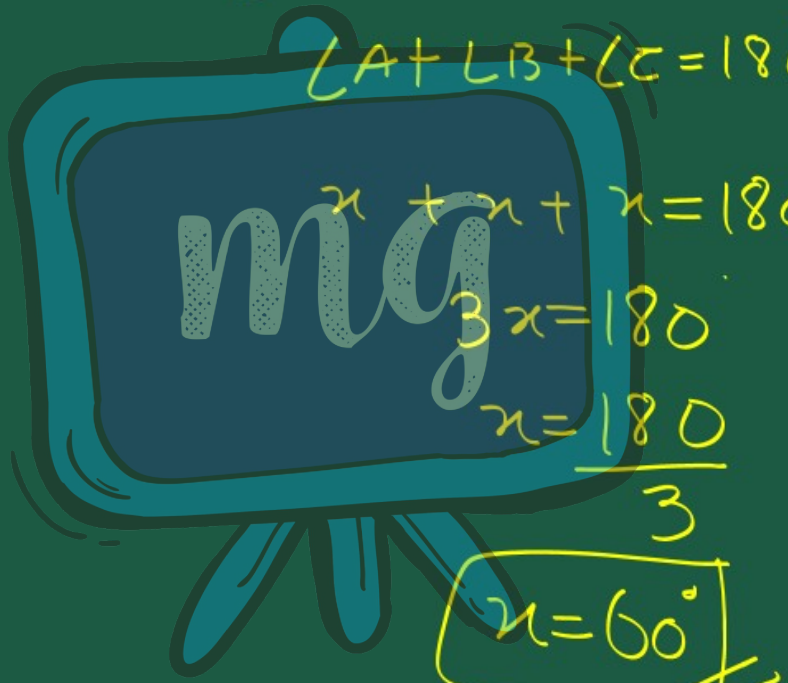
$\angle A + \angle B + \angle C = 180^\circ$ — (1) [A.S.P]

Now ABC is equilateral triangle,

$\angle A = \angle B = \angle C = x$ [let] — (2)

Under CSR Support by ipca | Foundation

missiongyan LET'S LEARN TOGETHER



From eq (1) & (2)

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

$x + x + x = 180^\circ$

$3x = 180$

$x = \frac{180}{3}$

$x = 60^\circ$

Under CSR Support by
ipca | Foundation

missiongyan
LET'S LEARN TOGETHER

