

Maths

Prove Triangles are Congruent

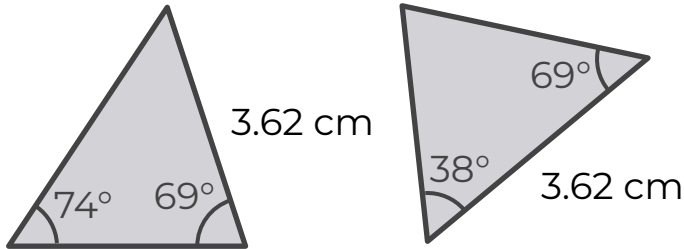
Mr Bond

Please note this downloadable resource contains some colored font

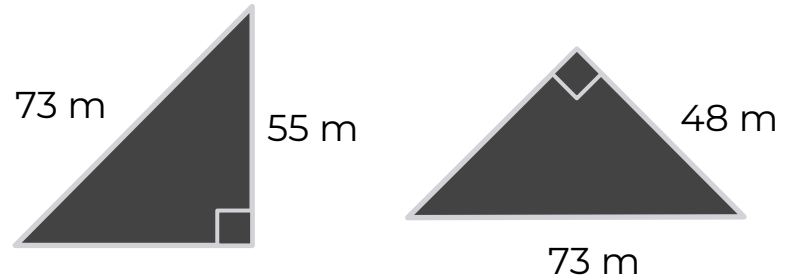


Conditions of congruent triangles.

1. Prove that the triangles are congruent. State any conditions of congruency used.



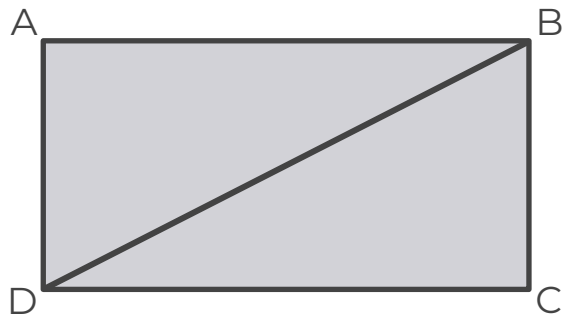
2. Show that the triangles are congruent. State the condition of congruency used.



Conditions of congruent triangles.

3. ABCD is a rectangle.

BD is the diagonal of the rectangle.

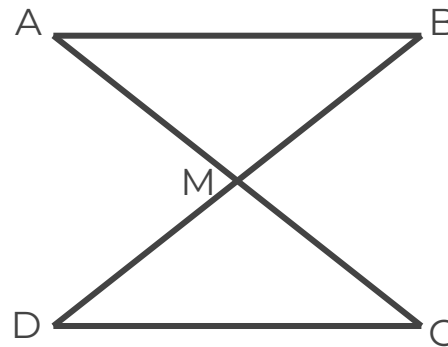


Prove that ABD and BCD are congruent triangles.

State any conditions of congruency used.

4. Line segments AB and CD are parallel.

M is the midpoint of BC.



Prove that ABM and CDM are congruent.

State any conditions of congruency used.

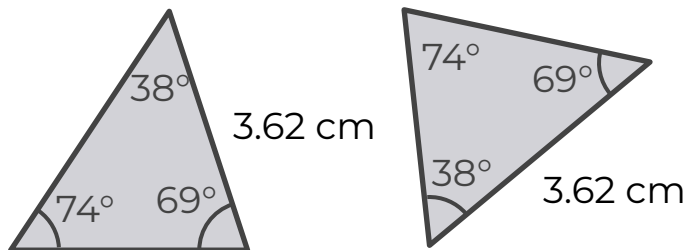


Answers



Conditions of congruent triangles.

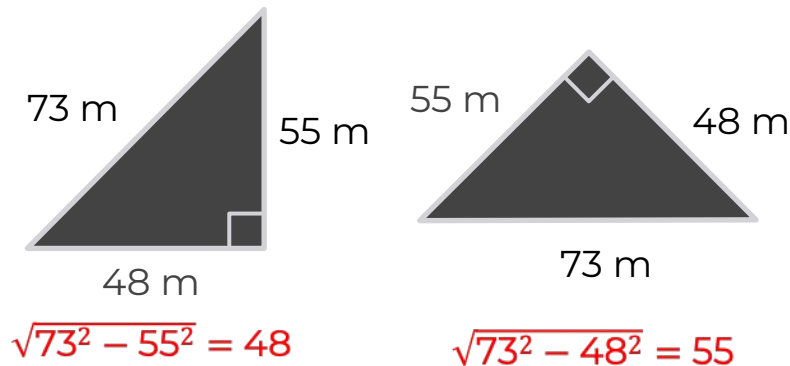
1. Prove that the triangles are congruent. State any conditions of congruency used.



Angles in a triangle sum to 180°

The triangles are congruent. (ASA)

2. Show that the triangles are congruent. State the condition of congruency used.



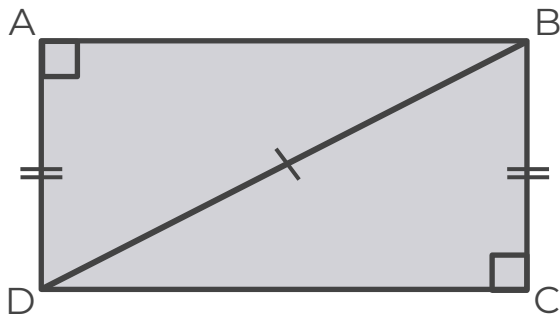
The triangles are congruent. (SSS or RHS or SAS)



Conditions of congruent triangles.

3. ABCD is a rectangle.

BD is the diagonal of the rectangle.

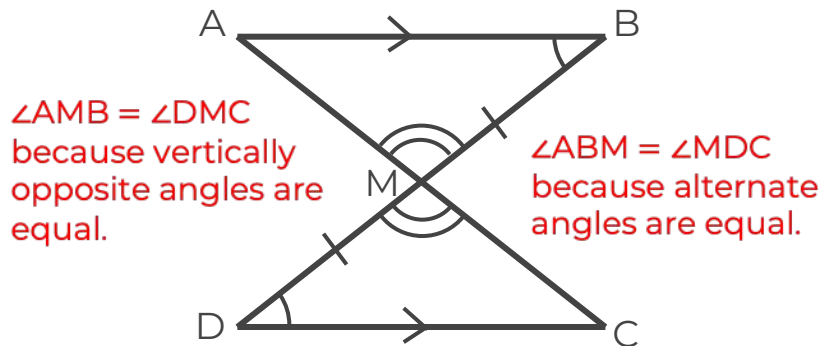


Prove that ABD and BCD are congruent triangles.

BD is a shared side. $AD = BC$ because opposite sides in a rectangle are equal in length. ABD and BCD are congruent (RHS)

4. Line segments AB and CD are parallel.

M is the midpoint of BD.



Prove that ABM and CDM are congruent.

State any conditions of congruency used.

ASA

