QUESTION **1** Complete the following sentences.

a Two triangles are congruent if three sides of one triangle are equal to_____ of the other triangle.

b Two triangles are congruent if two sides and the included angle of one triangle are equal to _____ _____ of the other triangle.

c Two triangles are congruent if two angles and a side of one triangle are equal to _____ of the other triangle.

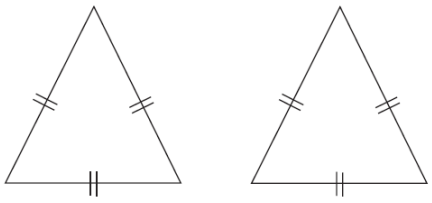
d Two right-angled triangles are congruent if the hypotenuse and one side of one triangle are equal to

_____ of the other triangle.

e The symbol for congruent triangles is _____.

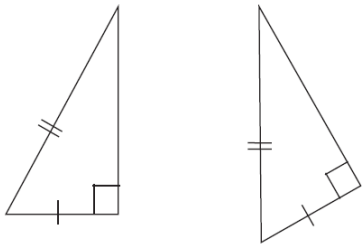
QUESTION **2** In each pair of triangles below, write the congruence test that would be used to prove that the triangles are congruent.

a



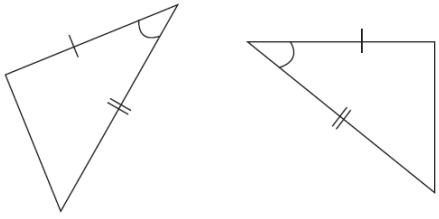
_____

b

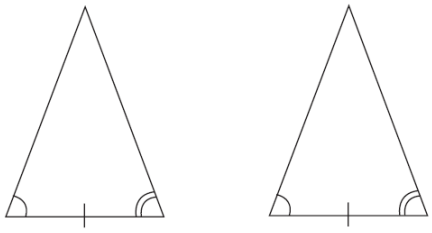


_____

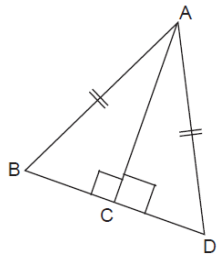
c



d



QUESTION **3**



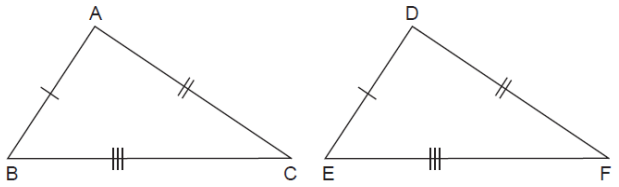
a Name the common side in ΔABC and ΔACD._____

b Are the triangles congruent?_____

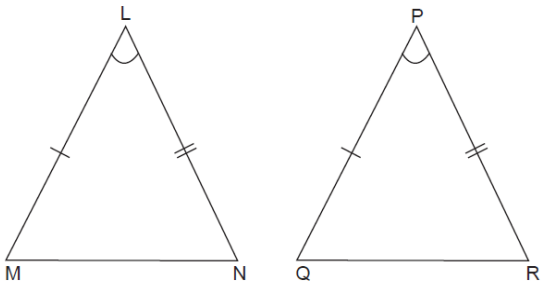
c If they are, name the test that you can use to prove it. _____

QUESTION 1 In each pair of triangles given below, prove that the triangles are congruent.

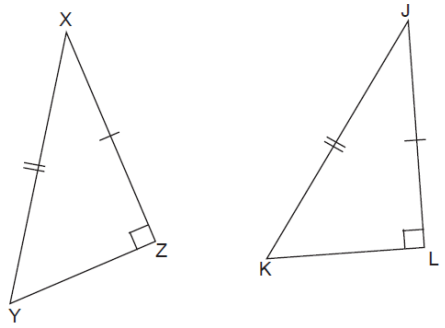
a



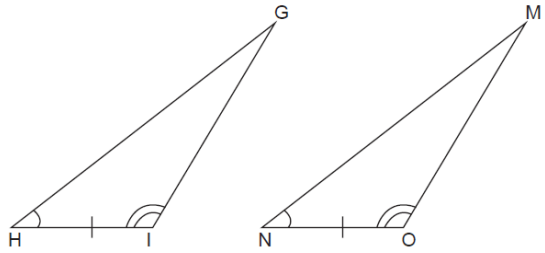
b



c

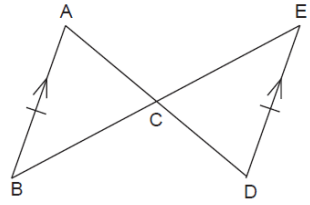


d

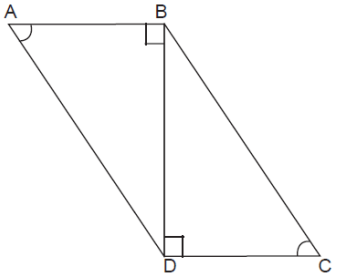


QUESTION 2 Prove that the following pairs of triangles are congruent.

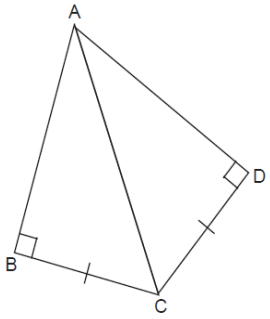
a



b

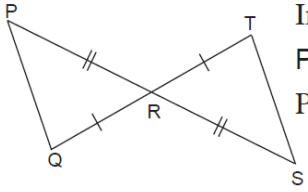


c



In this diagram
BC = CD and
∠ABC = ∠ADC = 90°.
Prove that ΔABC ≡ ΔADC.

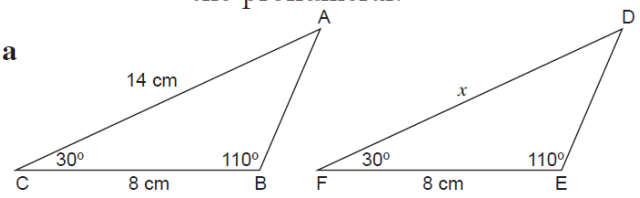
d



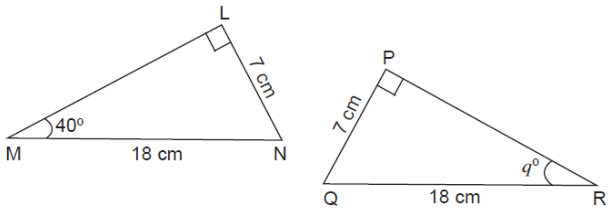
In this diagram
PR = SR and QR = TR
Prove that ΔPQR ≡ ΔSTR.

QUESTION 1 Prove that the following pairs of triangles are congruent and then find the value of the pronumeral.

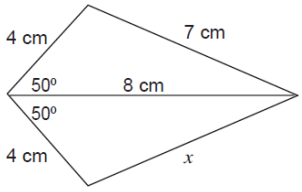
a



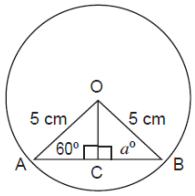
b



c

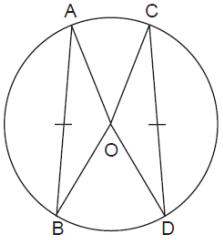


d



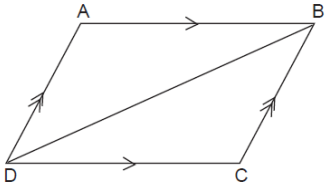
QUESTION 2

a



Given that O is the centre of the circle and that AB = CD, prove that ∠AOB = ∠COD.

b



Given that ABCD is a parallelogram, prove that AB = DC and AD = BC.