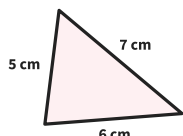
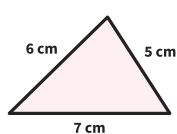


Congruent Triangles

ANSWERS

1 The triangles are congruent. Circle the condition.

S is a side, A is an angle.

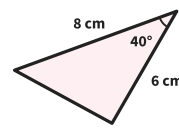
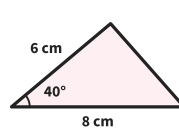


Sides given

Angles given

☒ SSS ☐ SAS ☐ ASA ☐ RHS

2 The triangles are congruent. Circle the condition.

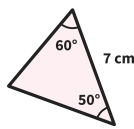
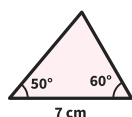


Sides given

Angles given

SSS ☒ SAS ☐ ASA ☐ RHS

3 The triangles are congruent. Circle the condition.

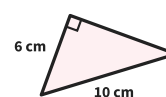
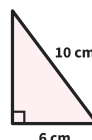


Sides given

Angles given

SSS ☐ SAS ☒ ASA ☐ RHS

4 The triangles are congruent. Circle the condition.

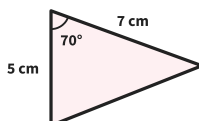
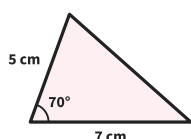


Sides given

Angles given

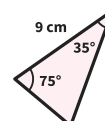
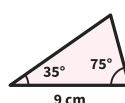
SSS ☐ SAS ☐ ASA ☒ RHS

5 The triangles are congruent. Circle the condition.



SSS ☒ SAS ☐ ASA ☐ RHS

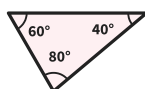
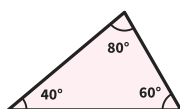
6 The triangles are congruent. Circle the condition.



SSS ☐ SAS ☒ ASA ☐ RHS

7 Are the triangles congruent? Give a reason.

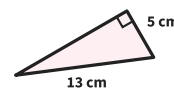
Notice the change!



Yes ☒ No

Reason *Only angles match.*

8 Are the triangles congruent? Give a reason.



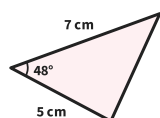
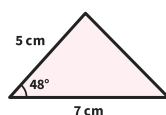
Yes ☒ No

Reason *RHS*

Congruent Triangles further practice

ANSWERS

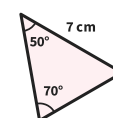
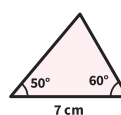
9 Are the triangles congruent? Give a reason.



*5 cm, 48° and 7 cm
match, in the same order*

Answer *Yes, SAS*

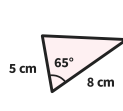
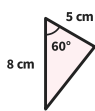
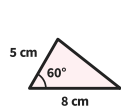
10 Are the triangles congruent? Give a reason.



*third angle $180 - 50 - 70 = 60^\circ$
7 cm between 50° and 60°*

Answer *Yes, ASA*

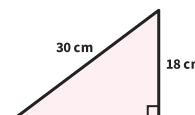
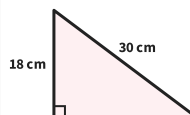
11 Which two of these triangles are congruent? Give a reason.



*5 cm, 60° and 8 cm
SAS*

Answer *A and B*

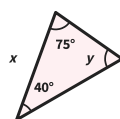
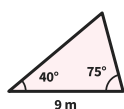
12 Two triangular shelf brackets each have a right angle, a 18 cm side and a 30 cm longest side. Are the brackets congruent? Give a reason.



*right angle, hypotenuse
and one other side*

Answer *Yes, RHS*

13 Two triangular sails are congruent. Find x and y.

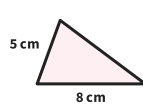


x matches the 9 m side

$y = 180 - 40 - 75$

Answer *$x = 9\text{ m}, y = 65^\circ$*

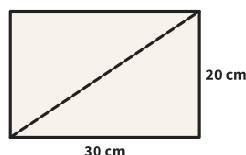
14 Each triangle has sides of 5 cm and 8 cm. What else would you need to know to show they are congruent by SAS?



*the angle between the
5 cm and 8 cm sides*

Answer *the included angle*

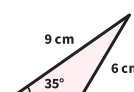
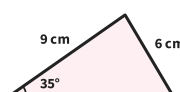
15 A rectangular tile is cut along the dashed diagonal into two triangles. Are the two triangles congruent? Give a reason.



*both: 30 cm, 20 cm
and the diagonal*

Answer *Yes, SSS*

16 Mo says these triangles are congruent by SAS. Is Mo right? Explain.



*the 35° angle is not
between the two sides*

Answer *No*