

Name:

Exam Style Questions

## Congruent Triangles



Corbettmaths

Ensure you have: Pencil, pen, ruler, protractor, pair of compasses and eraser

You may use tracing paper if needed

### Guidance

1. Read each question carefully before you begin answering it.
2. Don't spend too long on one question.
3. Attempt every question.
4. Check your answers seem right.
5. Always show your workings

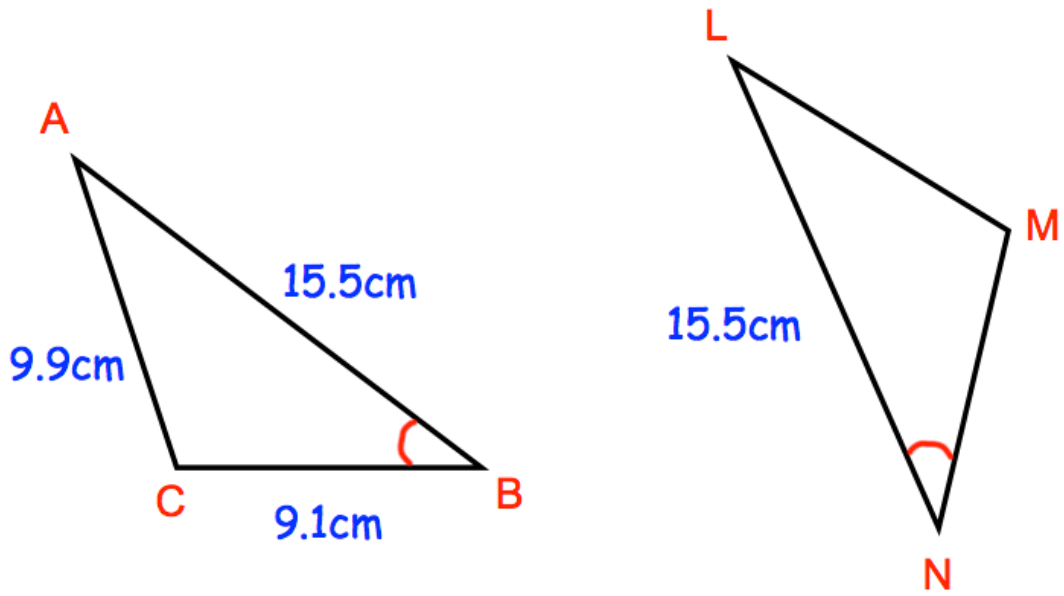
Revision for this topic

[www.corbettmaths.com/contents](http://www.corbettmaths.com/contents)

## Video 67



1. ABC and LMN are congruent triangles.  
Angle B = Angle N



- (a) Write down the length of MN.

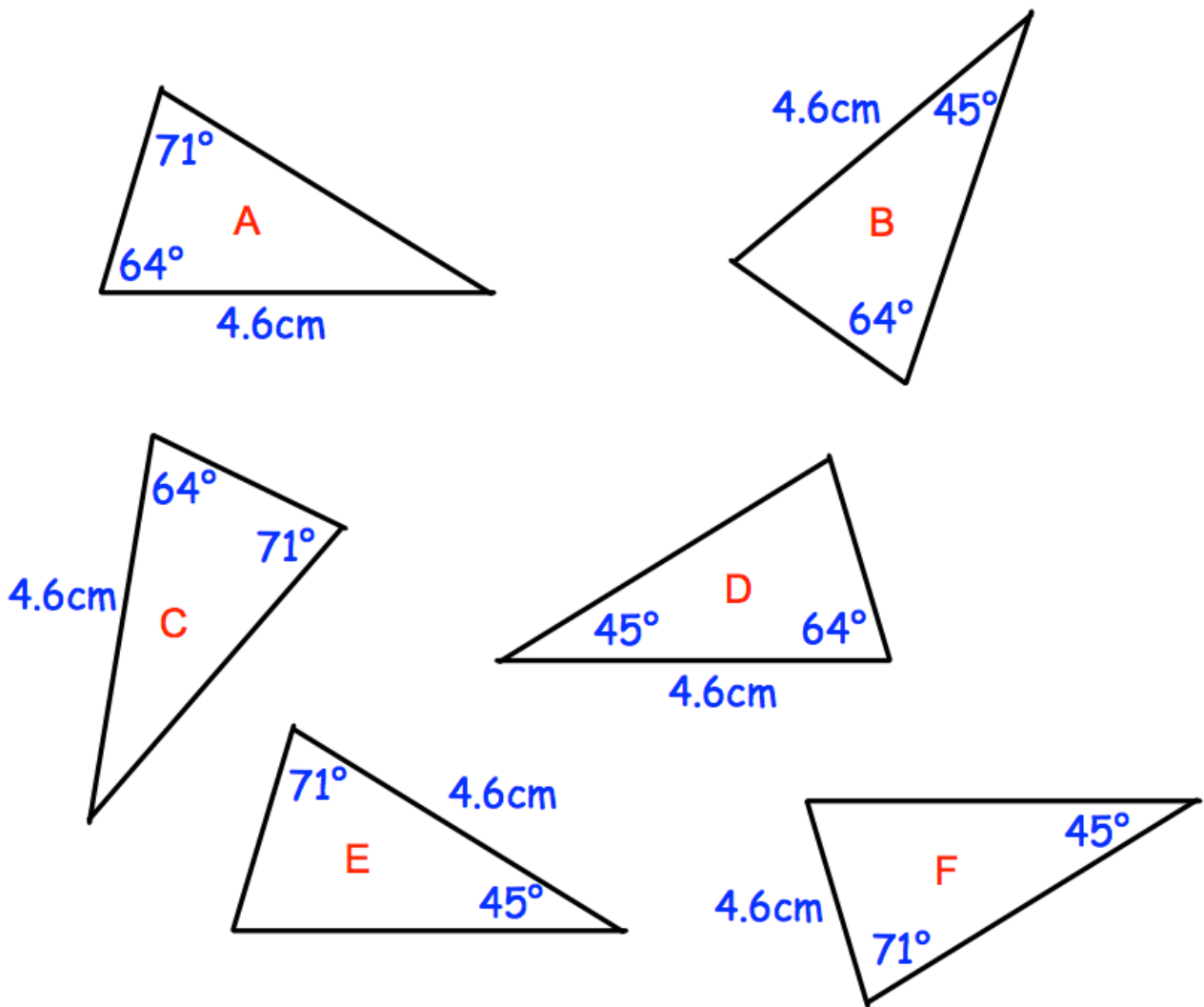
.....  
(1)

- (b) Explain why angle A = angle L

.....  
.....

(2)

2. Shown below are six triangles that are not drawn accurately.

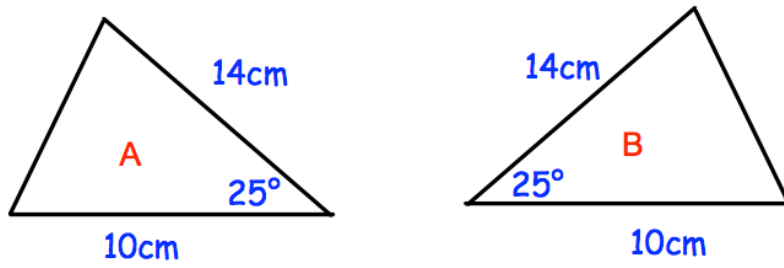


Which two triangles are congruent to triangle A?

..... and .....  
(2)

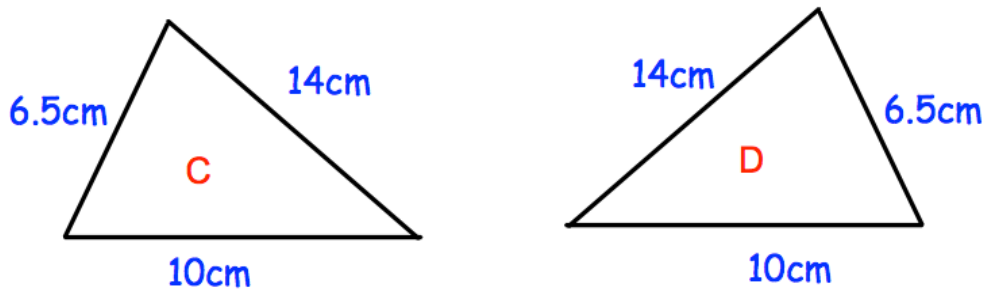
3. For each pair below, state the condition why they are congruent.

(a)



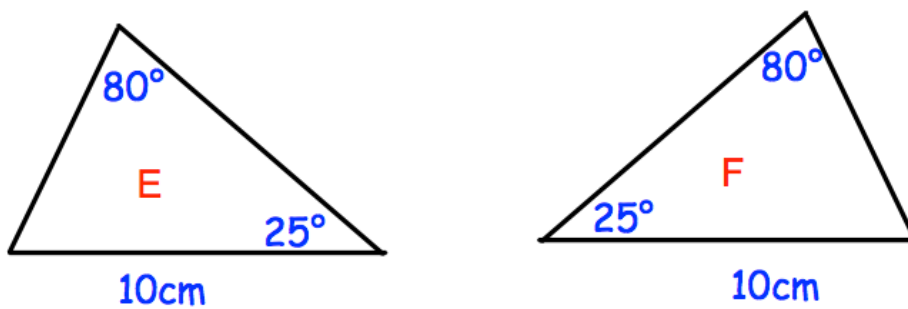
Condition: .....  
(1)

(b)



Condition: .....  
(1)

(c)



Condition: .....  
(1)

4. James and Chris each draw a triangle with one side of 10cm, one angle of  $45^\circ$  and one angle of  $85^\circ$ .

James says their triangles are congruent.

Explain why James is incorrect.

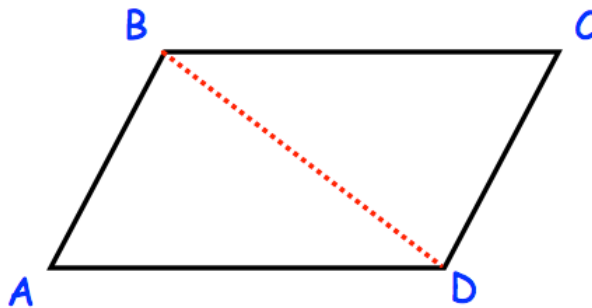
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.....

.....

(2)

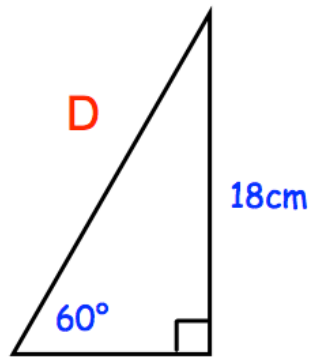
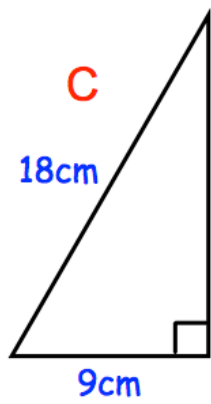
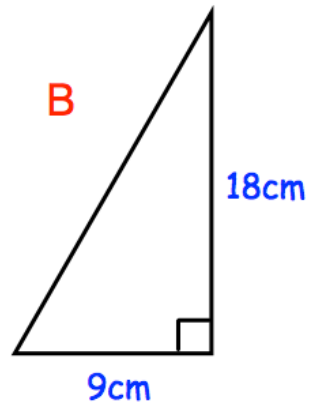
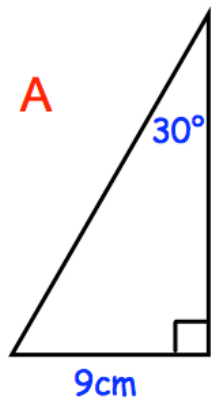
5. ABCD is a parallelogram.



Prove that triangles ABD and BCD are congruent.

(4)

6. Two of the triangles below are congruent.



Identify the two congruent triangles and explain your answer.

..... and .....

Reason: .....

.....

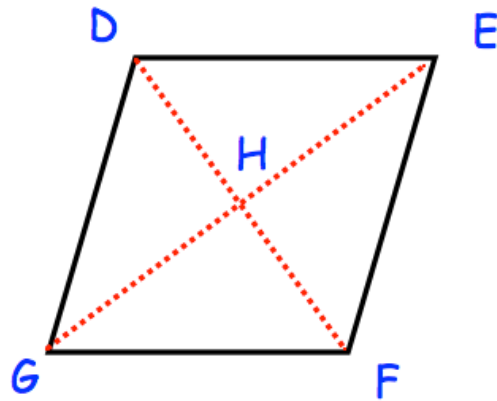
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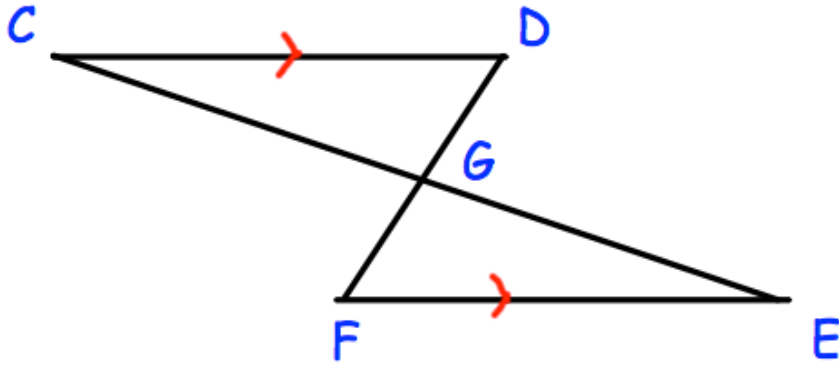
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7. The diagram shows a rhombus DEFG.  
The diagonals intersect at H.



Prove triangles DGH and EFH are congruent.

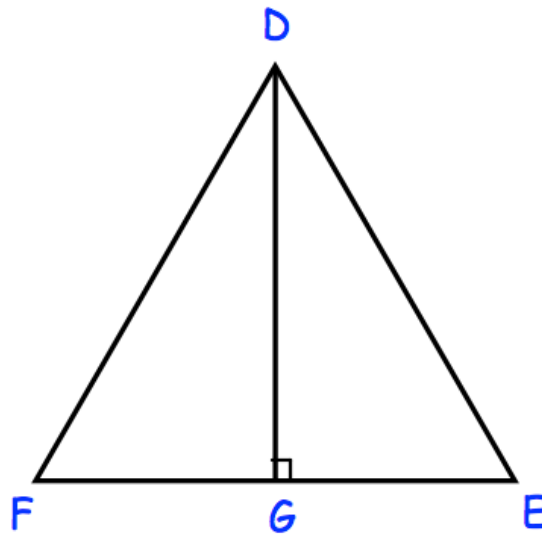
8. In the diagram, the lines CE and DF intersect at G.  
CD and FE are parallel and  $CD = FE$ .



Prove that triangles CDG and EFG are congruent.



9. DEF is an equilateral triangle.



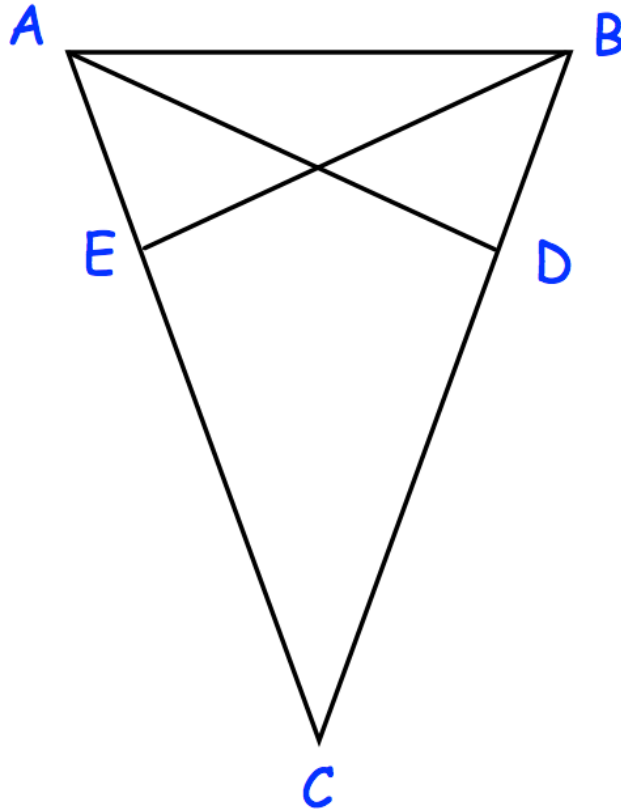
G lies on EF.

DG is perpendicular to FE.

Prove DFG is congruent to DEG.

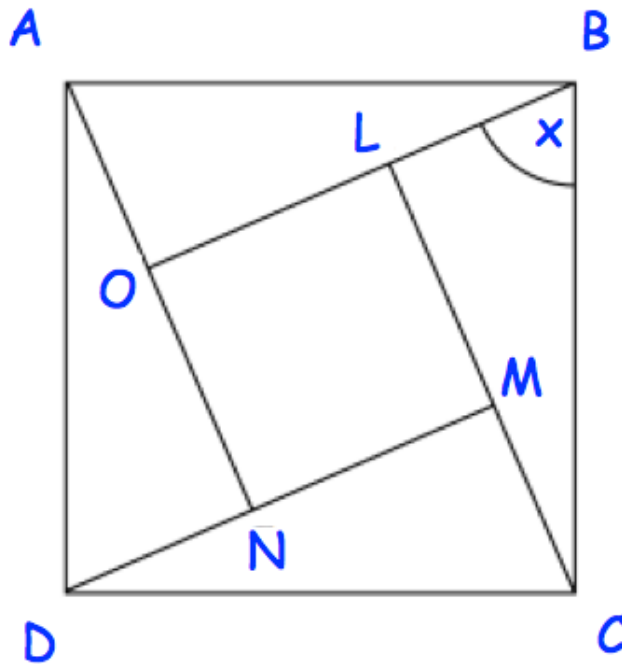
(3)

10.  $ABC$  is an isosceles triangle in which  $AC = BC$ .  
D and E are points on  $BC$  and  $AC$  such that  $CE = CD$ .



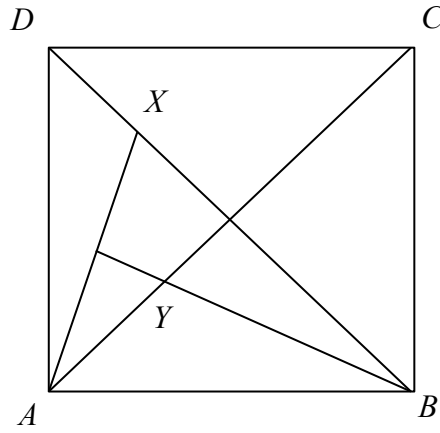
Prove triangles  $ACD$  and  $BCE$  are congruent.

11. ABCD and LMNO are squares.  
Angle CBL =  $x$



Prove that triangles ABO and CBL are congruent.

12. ABCD is a square, X is a point in the diagonal BD and the perpendicular from B to AX meets AC in Y.



Prove that triangles AXD and AYB are congruent.

(4)