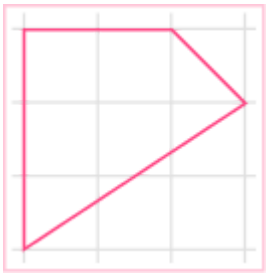
Congruent Shapes and Triangles - Worksheet

Skill

Group A - Congruent quadrilaterals

Write pairs of quadrilaterals that are congruent:

1)



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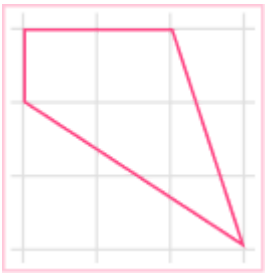

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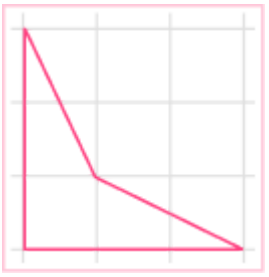

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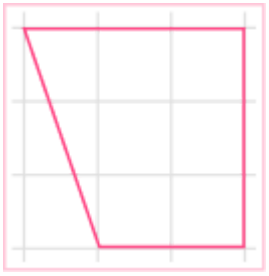

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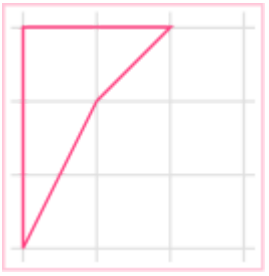

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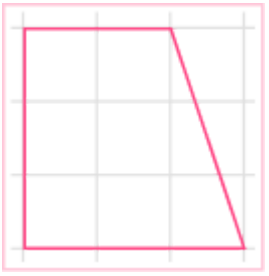

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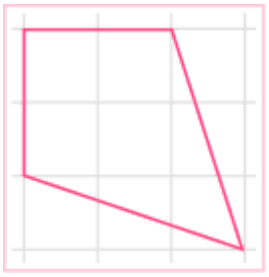

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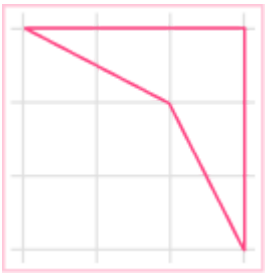

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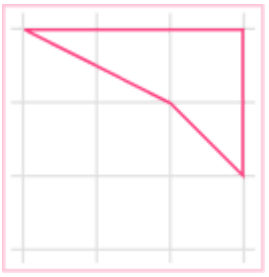

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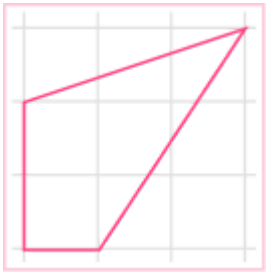

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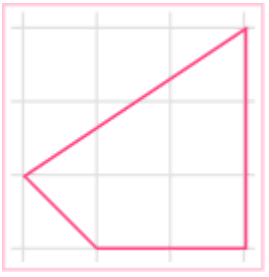

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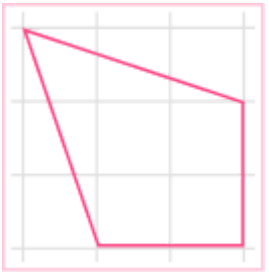

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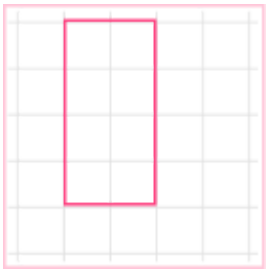
Congruent Shapes and Triangles - Worksheet

Group B - Congruent triangles

Write pairs of rectangles that are congruent:

1)



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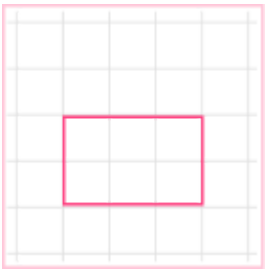

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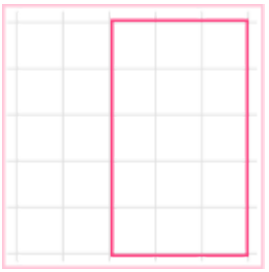

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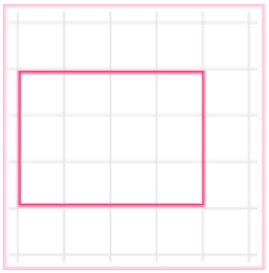

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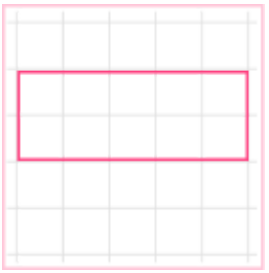

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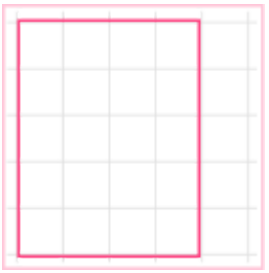

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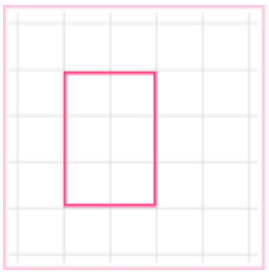

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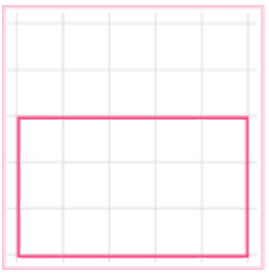

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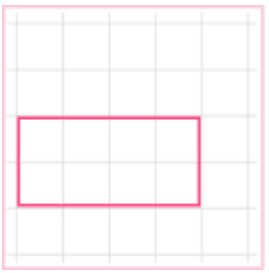

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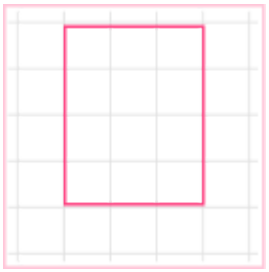

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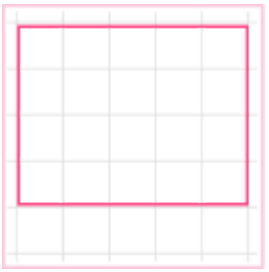

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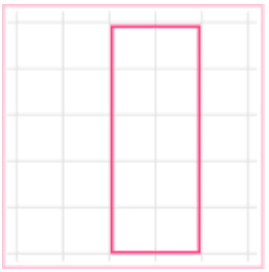
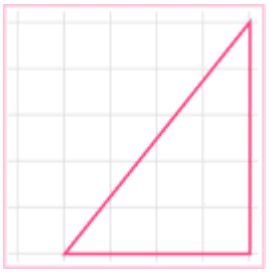


Congruent Shapes and Triangles - Worksheet

Group C - Congruent triangles

Write pairs of triangles that are congruent:

1)



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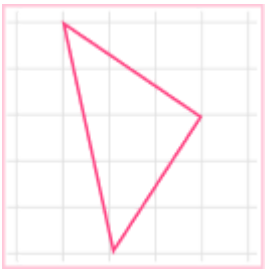

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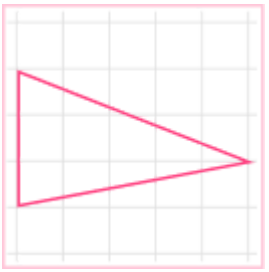

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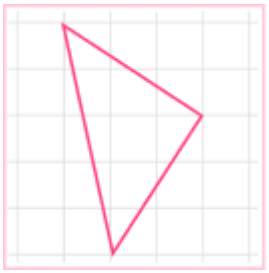

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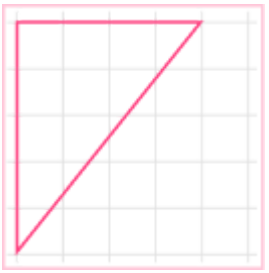

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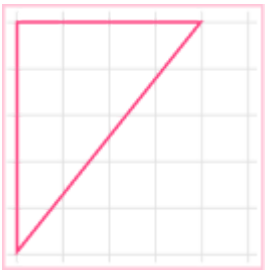
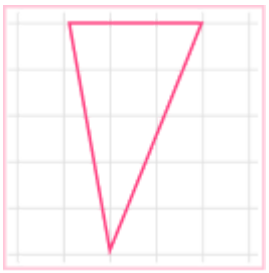


7)



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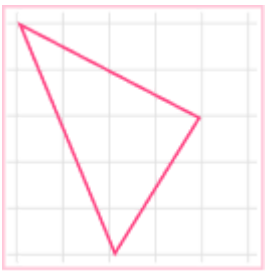

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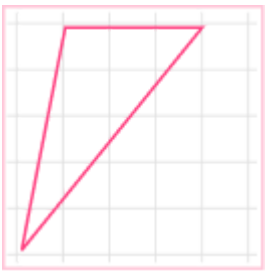

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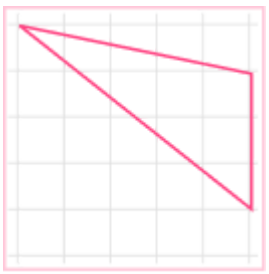

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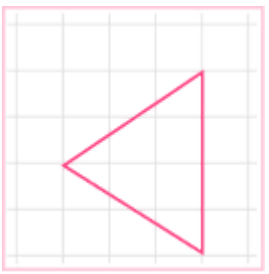

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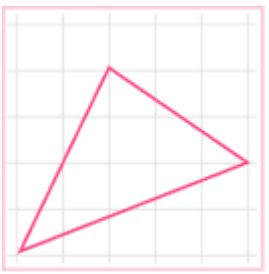

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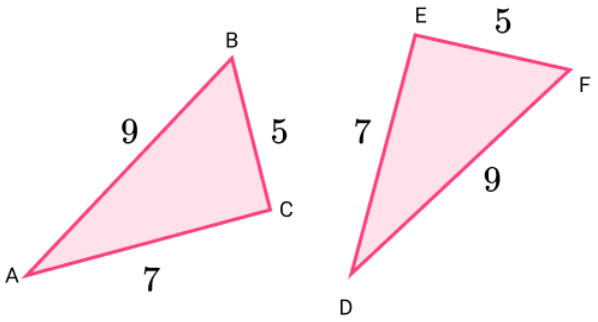
Congruent Shapes and Triangles - Worksheet

Applied

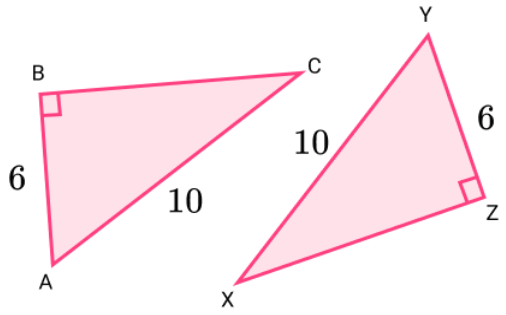
1) Triangles ABC and DEF are congruent. All lengths are in cm. Diagram is NOT to scale.



(a) Which condition of congruence do they meet?

(b) Pair up the equal sides.

2) Triangles ABC and XYZ are congruent. All lengths are in cm. Diagram is NOT to scale.

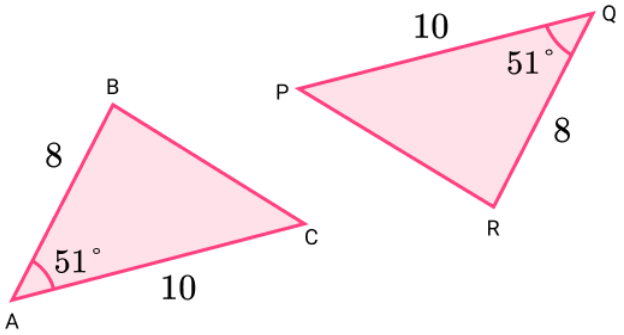


(a) Which condition of congruence do they meet?

(b) Pair up the required equal sides and angles.

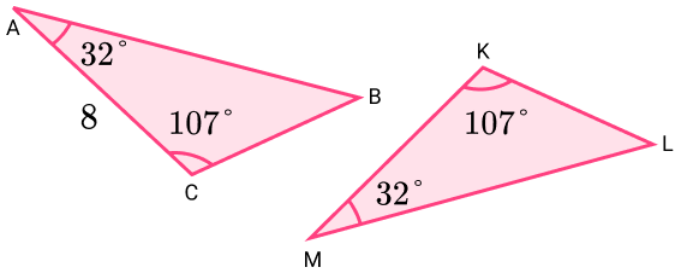
Congruent Shapes and Triangles - Worksheet

3) **(a)** Triangles ABC and PQR are congruent. All lengths are in cm. Diagram is NOT to scale. Which condition of congruence do they meet?



(b) Pair up the required equal sides and angles.

4) **(a)** Triangles ABC and KLM are congruent. All lengths are in cm. Diagram is NOT to scale. Which condition of congruence do they meet?



(b) Pair up the required equal sides and angles.

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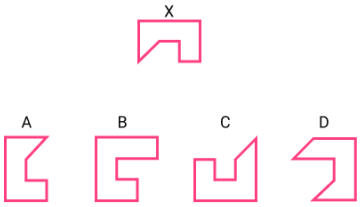
Congruent Shapes and Triangles - Exam Questions

1) Which shape is congruent to shape X?

.....

(1 mark)



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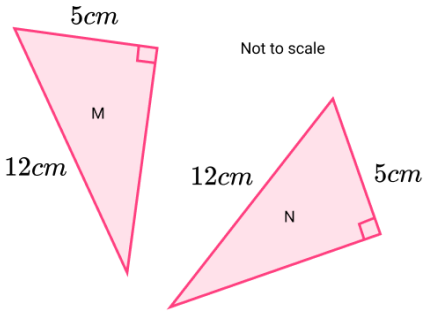
2) Triangles M and N are right-angled.

.....

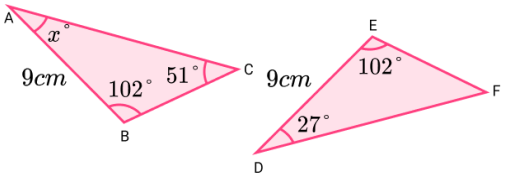
(1 mark)



Explain why the two triangles are congruent.

---

3)



(a) Work out angle x.

.....

(2)

(b) Explain why these two triangles are congruent.

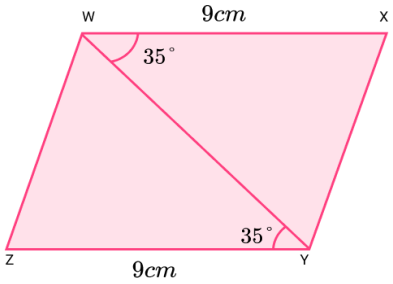
.....

(1)

(3 marks)

Congruent Shapes and Triangles - Exam Questions

4) $WXYZ$ is a quadrilateral. WY is a diagonal.



Prove that triangle WXY is congruent to triangle WYZ.

..... **(3 marks)**

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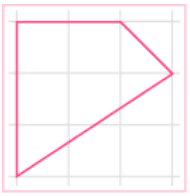
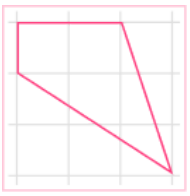
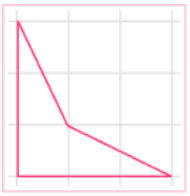
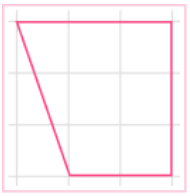
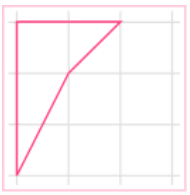
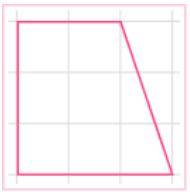
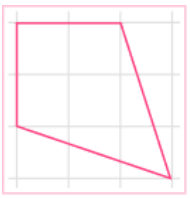
Congruent Shapes and Triangles - Answers

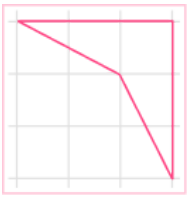
	Question	Answer
	Skill Questions	
Group A	Write pairs of quadrilaterals that are congruent: **1)**  **2)**  **3)**  **4)**  **5)**  **6)** 	**1)** 1 and 11 **2)** 2 and 10 **3)** 3 and 8 **4)** 4 and 6 **5)** 5 and 9 **6)** 7 and 12

Congruent Shapes and Triangles - Answers

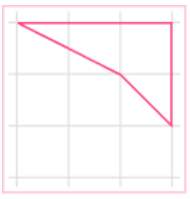
7)



8)



9)



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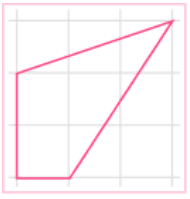

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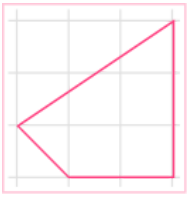

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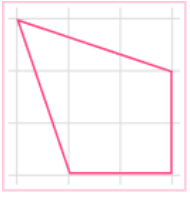

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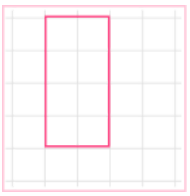
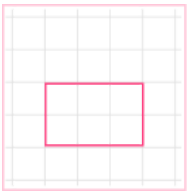
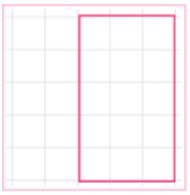
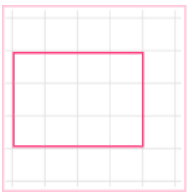
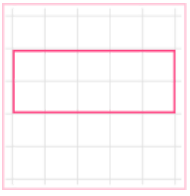
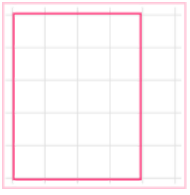
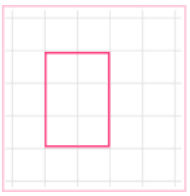
Congruent Shapes and Triangles - Answers

Group B	Write pairs of rectangles that are congruent: **1)**  **2)**  **3)**  **4)**  **5)**  **6)** 	**1)** 1 and 9 **2)** 2 and 7 **3)** 3 and 8 **4)** 4 and 10 **5)** 5 and 12 **6)** 6 and 11

Congruent Shapes and Triangles - Answers

7)



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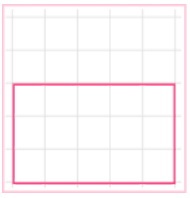

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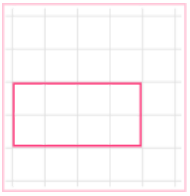

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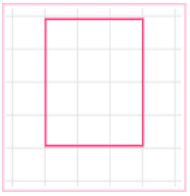

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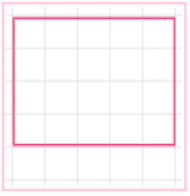

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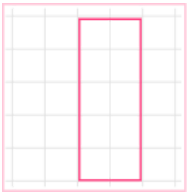

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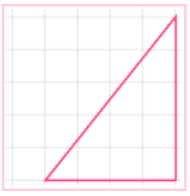
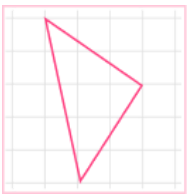
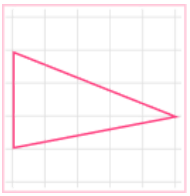
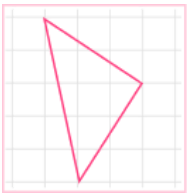
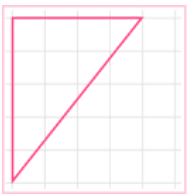
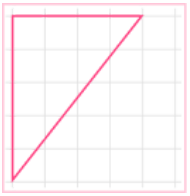
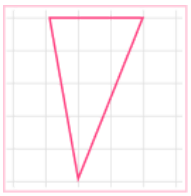
Congruent Shapes and Triangles - Answers

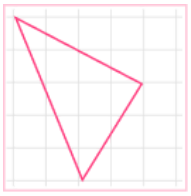
Group C	Write pairs of triangles that are congruent: **1)**  **2)**  **3)**  **4)**  **5)**  **6)** 	**1)** 1 and 5 **2)** 2 and 4 **3)** 3 and 7 **4)** 6 and 11 **5)** 8 and 12 **6)** 9 and 10

Congruent Shapes and Triangles - Answers

7)



8)



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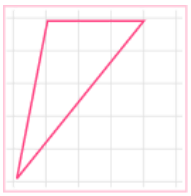

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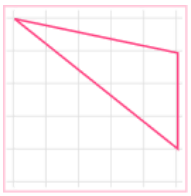

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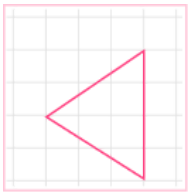

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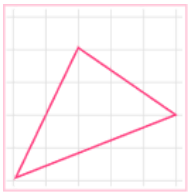

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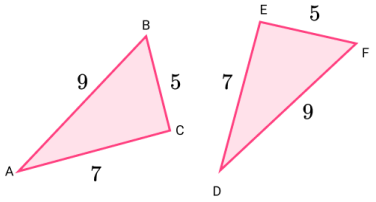
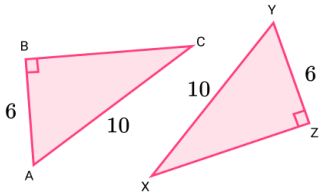
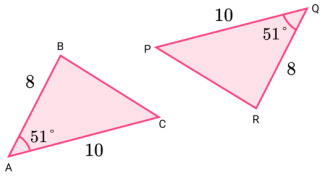
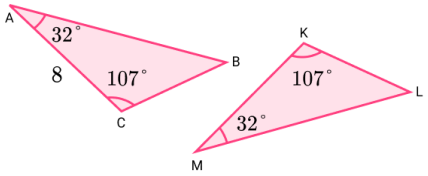
Congruent Shapes and Triangles - Answers

	Question	Answer
	Applied Questions	
1)	Triangles ABC and DEF are congruent. All lengths are in cm. Diagram is NOT to scale.  **(a)** Which condition of congruence do they meet? **(b)** Pair up the equal sides.	**(a)** SSS side-side-side **(b)** $AB = DF$ $BC = EF$ $AC = DE$
2)	Triangles ABC and XYZ are congruent. All lengths are in cm. Diagram is NOT to scale.  **(a)** Which condition of congruence do they meet? **(b)** Pair up the required equal sides and angles.	**(a)** RHS right angle, hypotenuse and one side **(b)** $AB = YZ$ $AC = XY$ (hypotenuse) angle ABC = angle $XZY = 90°$
3)	Triangles ABC and PQR are congruent. All lengths are in cm. Diagram is NOT to scale.  **(a)** Which condition of congruence do they meet? **(b)** Pair up the required equal sides and angles.	**(a)** SAS side-angle-side **(b)** $AB = RQ$ $AC = PQ$ angle BAC = angle PQR

Congruent Shapes and Triangles - Answers

4)	Triangles ABC and KLM are congruent. All lengths are in cm. Diagram is NOT to scale.  **(a)** Which condition of congruence do they meet? **(b)** Pair up the required equal sides and angles.	**(a)** ASA angle-side-angle **(b)** $AC = KM$ angle BAC = angle KML angle BCA = angle MKL

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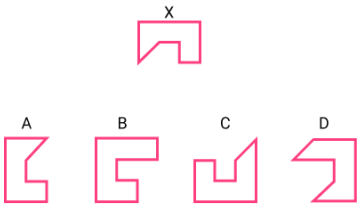
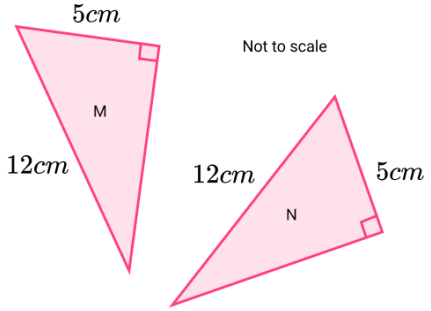
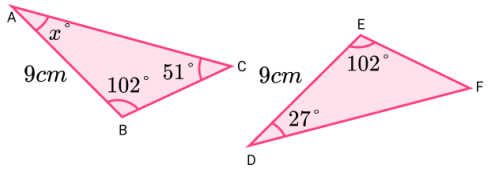
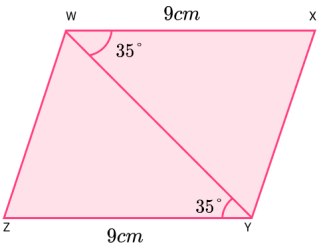
Congruent Shapes and Triangles - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Which shape is congruent to shape X? 	Shape A	**(1)**
2)	Triangles M and N are right-angled.  Explain why the two triangles are congruent.	RHS - right angle, hypotenuse and one short side	**(1)**
3)			
(a)	Work out angle x.	**(a)** $180 - (102 + 51)$ $x = 27$	**(2)**
(b)	Explain why the two triangles are congruent.	**(b)** ASA angle-side-angle	**(1)**
4)	$WXYZ$ is a quadrilateral. WY is a diagonal.  Prove that triangle WXY is congruent to triangle WYZ.	WY is common $WX = YZ$ angle XWY = angle WYZ (1 for one of the statements) (1 for other two statements) Triangle WXY is congruent to triangle WYZ because SAS side-angle-side (1)	**(3)**

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