

Constructions - Worksheet

Skill

Group A - Perpendicular bisector

Use ruler and compasses to construct perpendicular bisectors of these lines:

1)



2)



3)



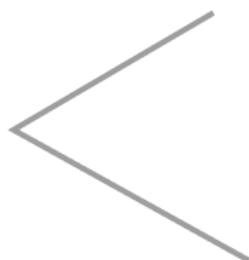
4)



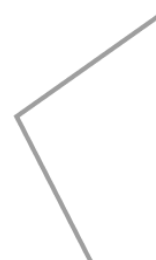
Group B - Angle bisector

Use ruler and compasses to construct bisectors of these angles:

1)



2)



3)



4)



Constructions - Worksheet

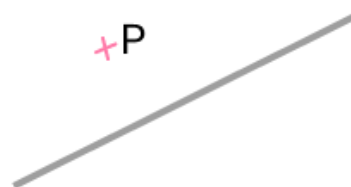
Group C - Point and perpendicular

Use ruler and compasses to construct perpendicular of these lines including the point:

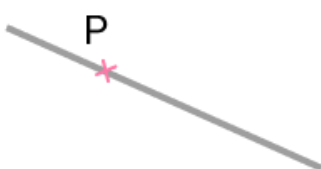
1)



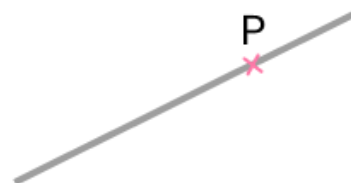
2)



3)



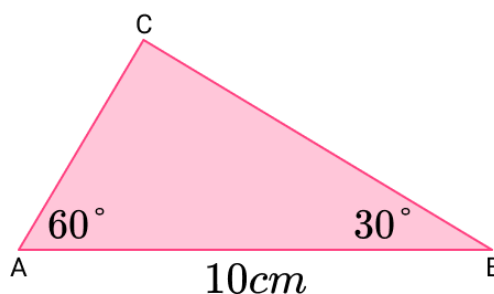
4)



Constructions - Worksheet

Applied

- 1)
 - (a) Construct an equilateral triangle.
 - (b) Construct a regular hexagon.
- 2)
 - (a) Construct a triangle with sides 6cm , 8cm and 9cm .
 - (b) On each side construct a perpendicular bisector. They should all meet at the same point.
 - (c) Using this point as the centre, draw a circle which goes through a vertex. What do you notice?
- 3)
 - (a) Draw this triangle accurately.



- (b) At each angle construct a bisector. They should all meet at the same point.
 - (c) Using this point as the centre, draw a circle touching a side. What do you notice?
- 4)
 - (a) Construct a 90° angle.
 - (b) Construct a 45° angle.
- 5)
 - (a) Construct a 60° angle.
 - (b) Construct a 30° angle.

Constructions - Exam Questions

- 1) Use a ruler and compasses to construct the perpendicular from point P to the line AB .

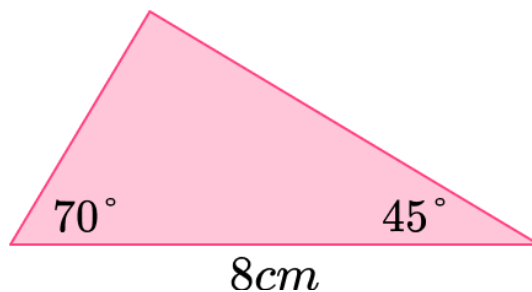
You must show your construction lines.



(2 marks)

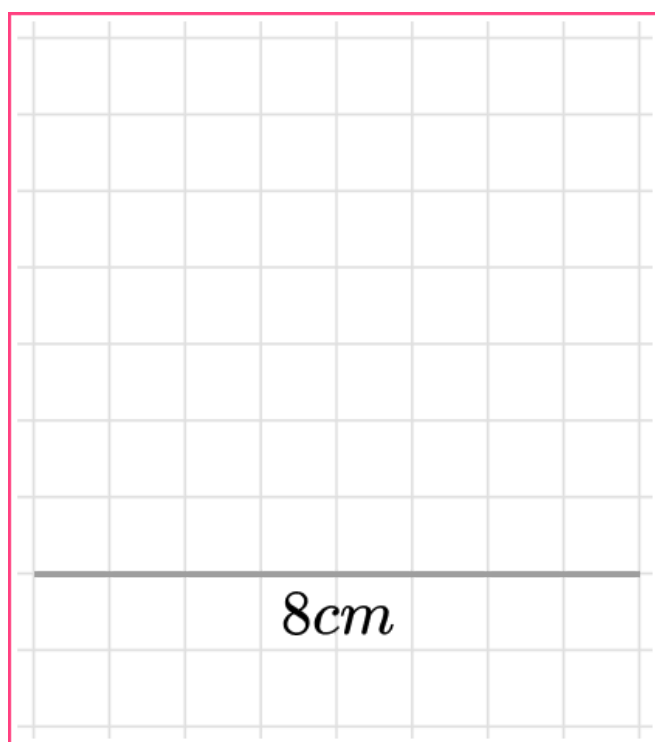
Constructions - Exam Questions

- 2) Here is a triangle.



Make an accurate drawing of the triangle ABC .

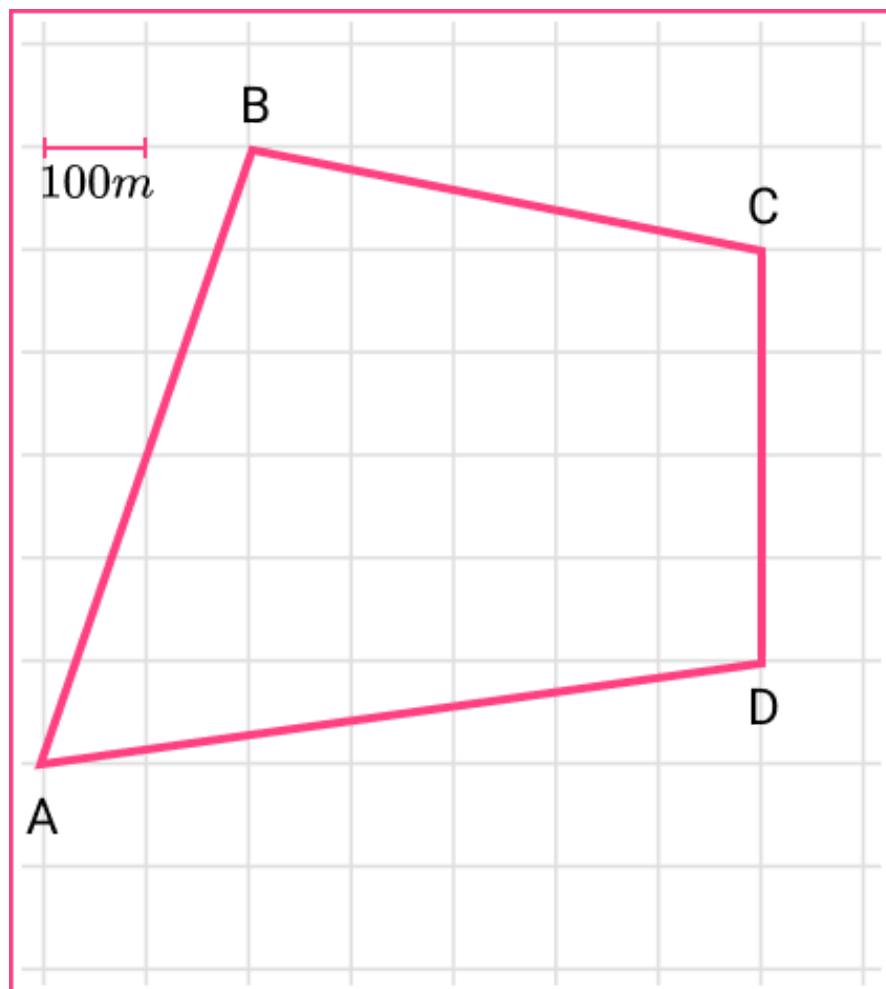
The base has already been drawn for you.



(2 marks)

Constructions - Exam Questions

- 3) The diagram shows the plan of a field.

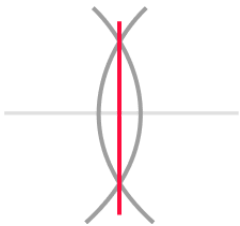
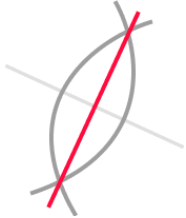
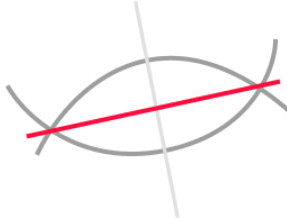


A tractor in the field is closer to AB than to AD . The tractor is more than $500m$ from D .

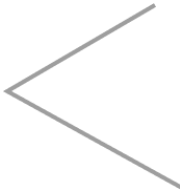
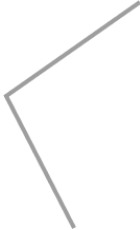
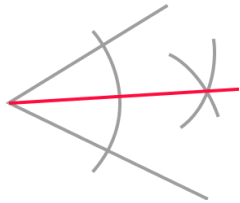
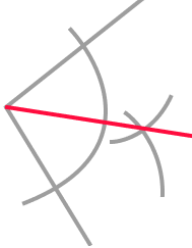
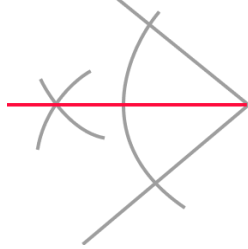
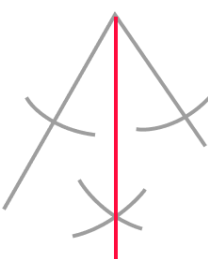
On the diagram, shade the region where the tractor might be and label it with an R .

(3 marks)

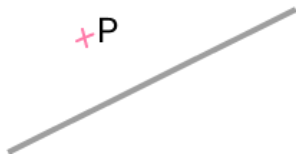
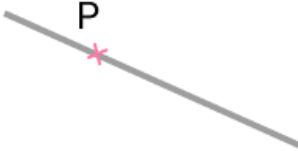
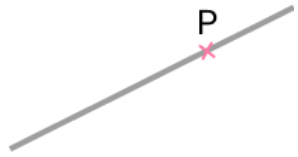
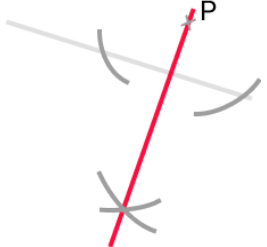
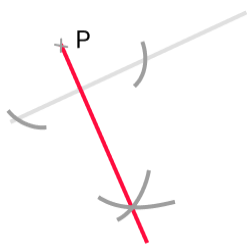
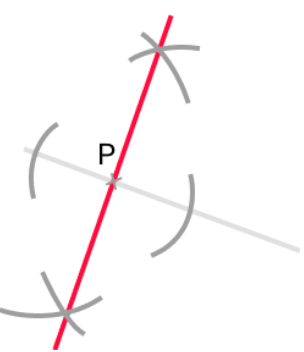
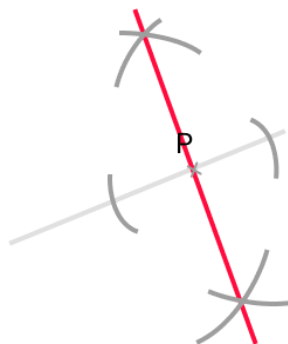
Constructions - Answers

	Question	Answer
	Skill Questions	
Group A	Use ruler and compasses to construct perpendicular bisectors of these lines: 1)  2)  3)  4) 	1)  2)  3)  4) 

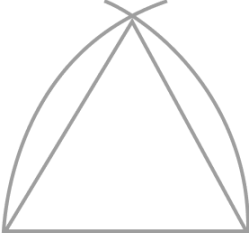
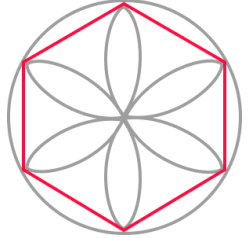
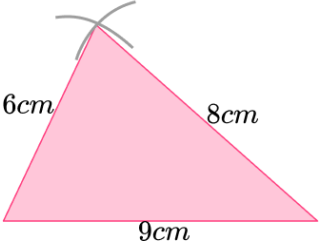
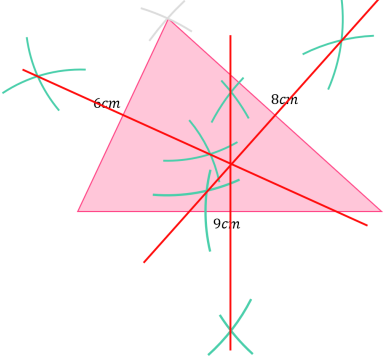
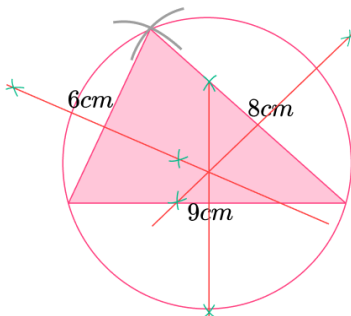
Constructions - Answers

Group B	Use ruler and compasses to construct bisectors of these angles: 1)  2)  3)  4) 	1)  2)  3)  4) 
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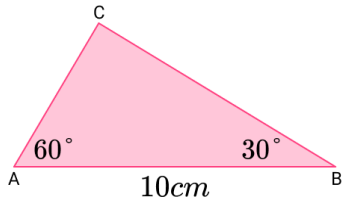
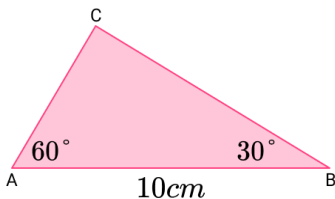
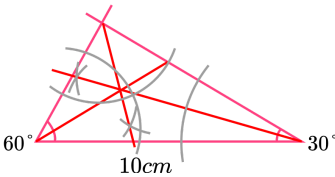
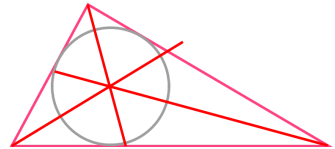
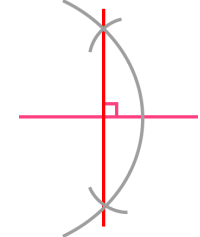
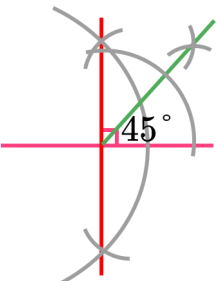
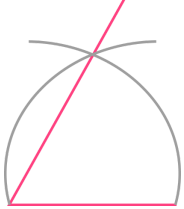
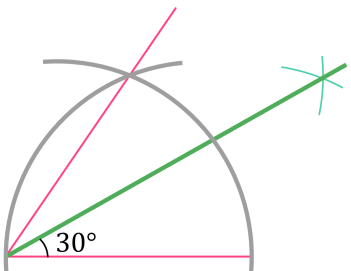
Constructions - Answers

Group C	Use ruler and compasses to construct perpendicular of these lines including the point: 1)  2)  3)  4) 	1)  2)  3)  4) 
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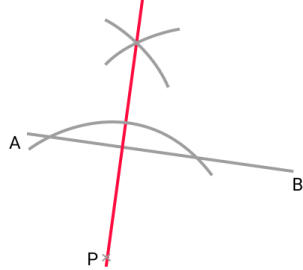
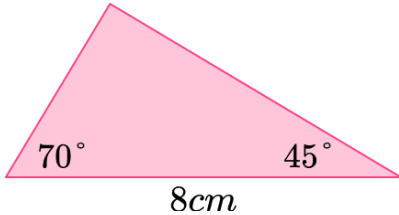
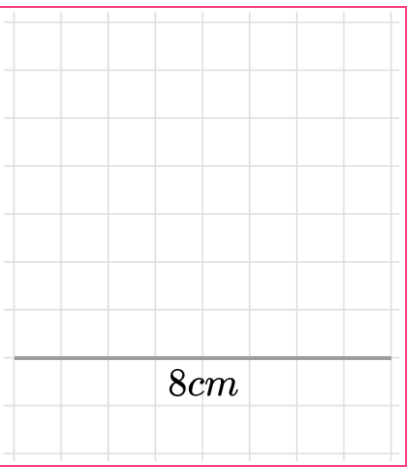
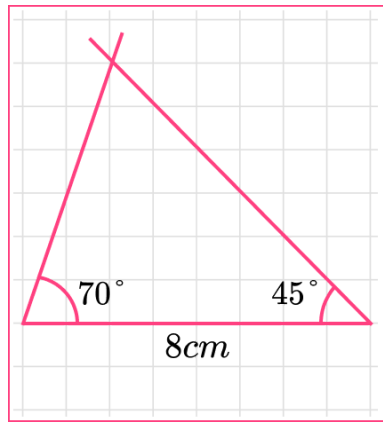
Constructions - Answers

	Question	Answer
	Applied Questions	
1)	a) Construct an equilateral triangle. b) Construct a regular hexagon.	a)  b) 
2)	a) Construct a triangle with sides 6cm, 8cm and 9cm. b) On each side construct a perpendicular bisector. They should all meet at the same point. c) Using this point as the centre, draw a circle which goes through a vertex. What do you notice?	a)  b)  c) 

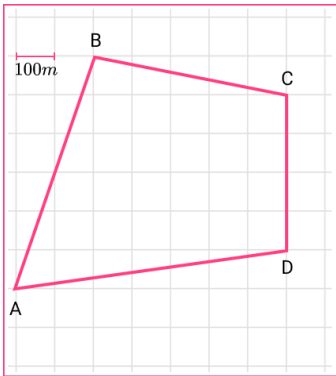
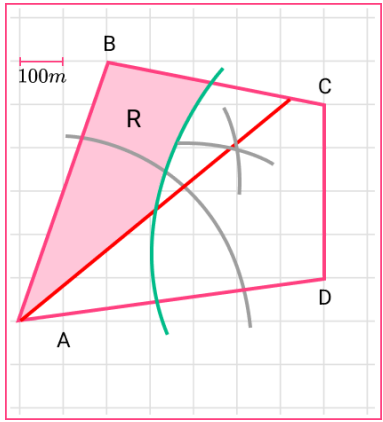
Constructions - Answers

3)	a) Draw this triangle accurately.  b) At each angle construct a bisector. They should all meet at the same point. c) Using this point as the centre, draw a circle touching a side. What do you notice?	a)  b)  c) 
4)	a) Construct a 90 degree angle. b) Construct a 45 degree angle.	a)  b) 
5)	a) Construct a 60 degree angle. b) Construct a 30 degree angle.	a)  b) 

Constructions - Mark Scheme

	Question	Answer	
	Exam Questions		
1)	Use a ruler and compasses to construct the perpendicular from point P to the line AB.  You must show your construction lines.	 For the first arc(s) crossing the line centred on P For the perpendicular with all construction arcs	(1) (1)
2)	Here is a triangle.  Make an accurate drawing of the triangle ABC. The base has already been drawn for you. 	 For the angle $68 - 72$ degrees or for the angle $43 - 47$ degrees For the completed triangle	(1) (1)

Constructions - Mark Scheme

3)	The diagram shows the plan of a field.  A tractor in the field is closer to AB and than to AD. The tractor is more than $500m$ from D. On the diagram, shade the region where the tractor might be and label it with an R.	 For the angle bisector of BAD (1) For arc of circle radius $500m$ centre D (1) For the correct shaded region (1)	
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