

## Check out

You should now be able to ...

- ✓ Know how to construct ASA, SAS, SSS and RHS triangles, bisectors and perpendiculars.
- ✓ Find and describe loci.
- ✓ Use Pythagoras' theorem to solve problems involving right-angled triangles.

## Test it

### Questions

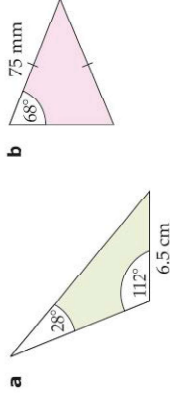
- 6 1 - 2
- 7 3 - 4
- 7 5 - 7



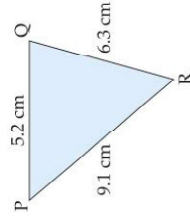
## Language Meaning Example

<b>Bisector</b>	A line that divides an angle or another line in half.		This is an angle bisector.
<b>Locus</b>	A set of points that satisfy a given rule.		This is the locus of points equidistant from a line.
<b>Construct</b>	To form an angle or shape accurately.		This is a construction of a 30° angle.
<b>Hypotenuse</b>	The longest side in a right-angled triangle.		
<b>Perpendicular</b>	Two lines are perpendicular to each other if they meet at a right angle.		The hypotenuse is the 5 cm length. AB and CD are perpendicular.
<b>Pythagoras' theorem</b>	In any right-angled triangle, Pythagoras' theorem gives the relationship between the lengths of the sides.		$a^2 + b^2 = c^2$ where $c$ is the hypotenuse.

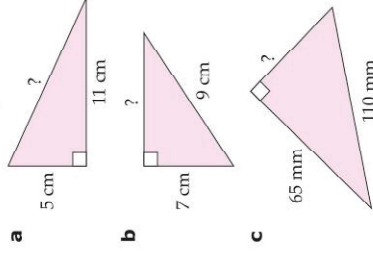
1 Construct these triangles.



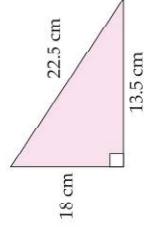
2 **a** Construct this triangle.



5 Calculate the unknown lengths in these right-angled triangles, and give your answers to 1 dp.



6 Use Pythagoras' theorem to decide if this triangle is right angled.

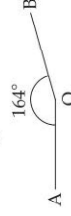


7 Calculate the distances between these pairs of points.

- a** (4, 7) and (-2, 9)  
**b** (-3, -8) and (-8, 11)

3 **a** Draw a circle with a radius of 3 cm.

- b** Draw the locus of the point that is 1 cm from the circumference of the circle.
- 4 **a** Use a protractor and ruler to copy the diagram



**b** Use a pair of compasses to construct the locus of a point that is equidistant to OA and OB.

## What next?

Score	0 - 3	4 - 5	6, 7
	Your knowledge of this topic is still developing. To improve look at Formative test: 3B-12; MyMaths: 1089, 1090, 1112 and 1147	You are gaining a secure knowledge of this topic. To improve look at InvisiPen: 371, 373, 375 and 381	You have mastered this topic. Well done, you are ready to progress!