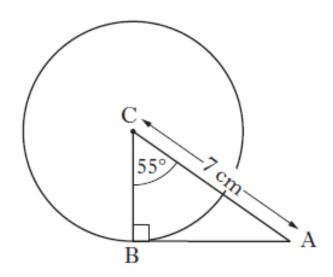
2015 Worked Solutions

2015 - Paper 2 - Question 12

ABC is a right-angled triangle.

B lies on the circumference of a circle with centre C.

The length of AC is 7 centimetres and the size of angle ACB is 55°.



Calculate the length of the diameter of the circle.

Do not use a scale drawing.



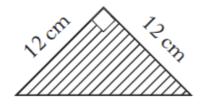


2014 Worked Solutions

2014 - Paper 2 - Question 10

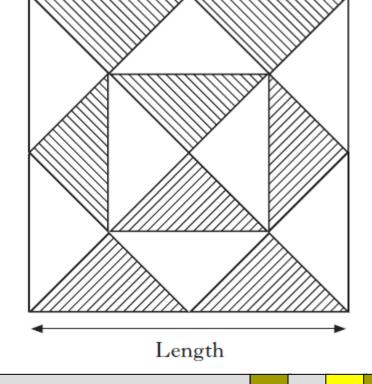
Jo is making a patchwork cushion.

Each patch is a right-angled triangle with both short sides 12 centimetres long.



She makes the cushion by arranging the patches as shown.

$$length = 2 \times 17 \cdot 0$$
$$= 34 \cdot 0 cm$$



Calculate the length of the cushion.

Do not use a scale drawing.



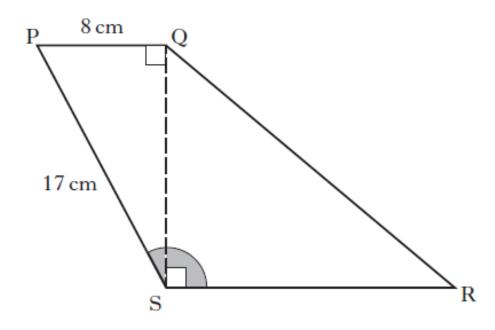




2014 Worked Solutions

2014 - Paper 2 - Question 12

In shape PQRS, side PQ is 8 centimetres and side PS is 17 centimetres as shown.

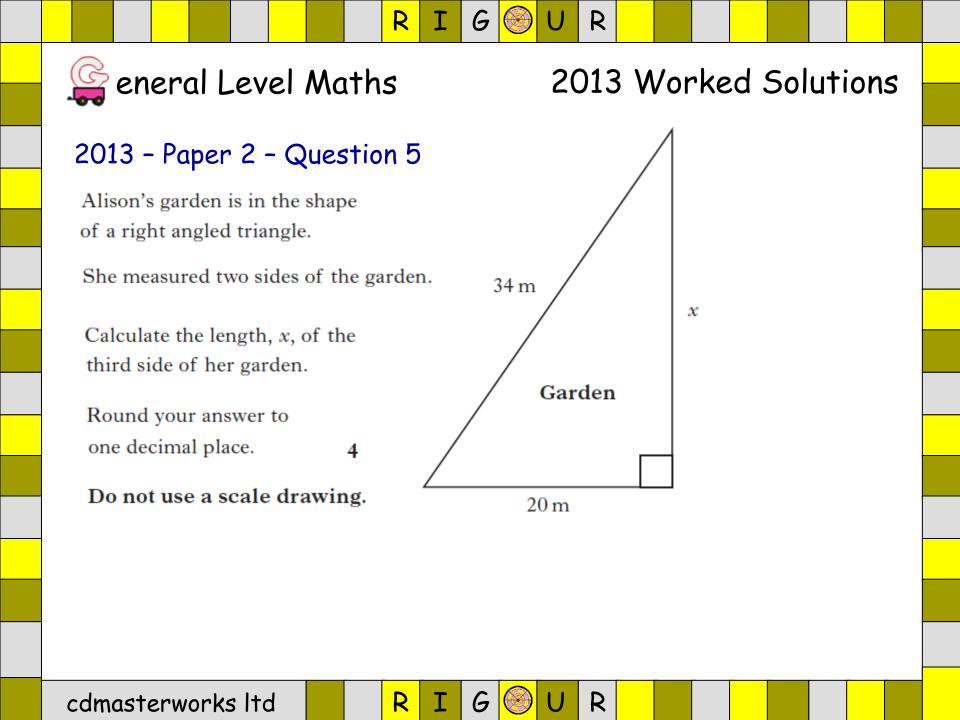


Calculate the size of the shaded angle PSR.

Do not use a scale drawing.







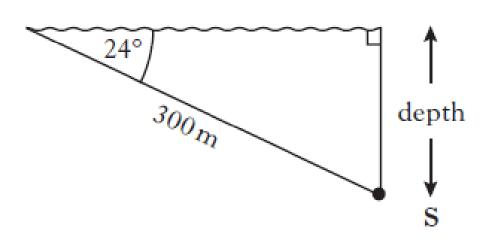
2013 Worked Solutions

2013 - Paper 2 - Question 9

A submarine, S, dives for 300 metres at an angle of 24° to the surface.

Calculate the depth of the submarine as shown in the diagram.

Do not use a scale drawing.







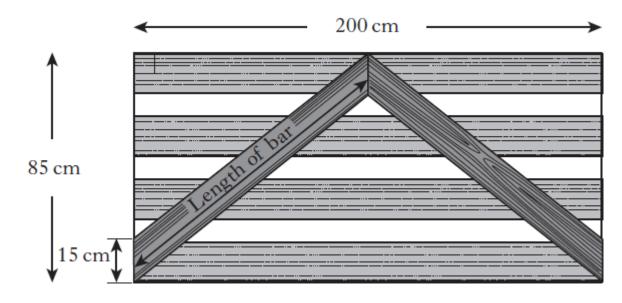
2013 Worked Solutions

2013 - Paper 2 - Question 12

A wooden gate is 85 centimetres high and 200 centimetres wide.

The gate is strengthened by two bars which meet half-way across the gate as shown.

The ends of each bar measure 15 centimetres.



Calculate the length of one of the bars.

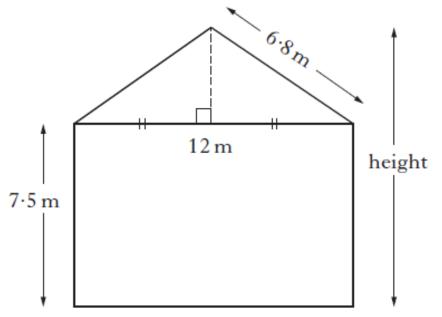
Do not use a scale drawing.

2012 Worked Solutions

2012 - Paper 2 - Question 14

The diagram shows the end view of a building.





Calculate the total height of the building.

Do not use a scale drawing.









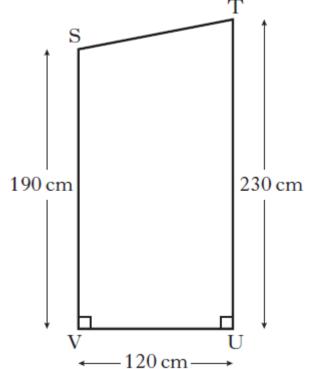
2012 Worked Solutions

2012 - Paper 2 - Question 7

Maggie has bought a garden shed.

The dimensions for one side of the shed are shown in the diagram below.





Calculate the length of ST.

Do not use a scale drawing.

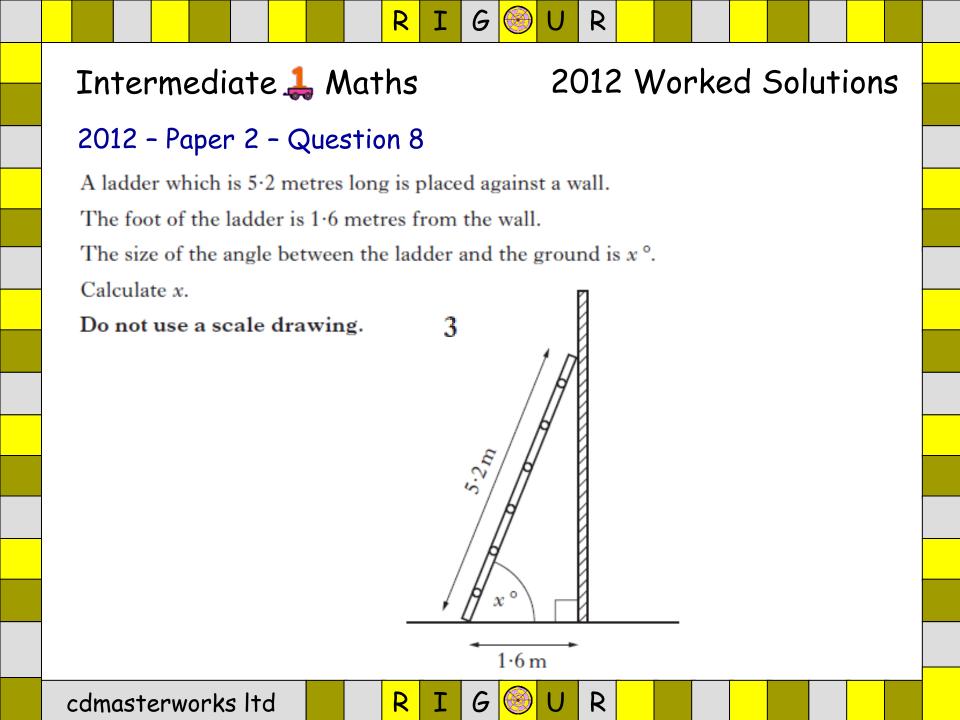
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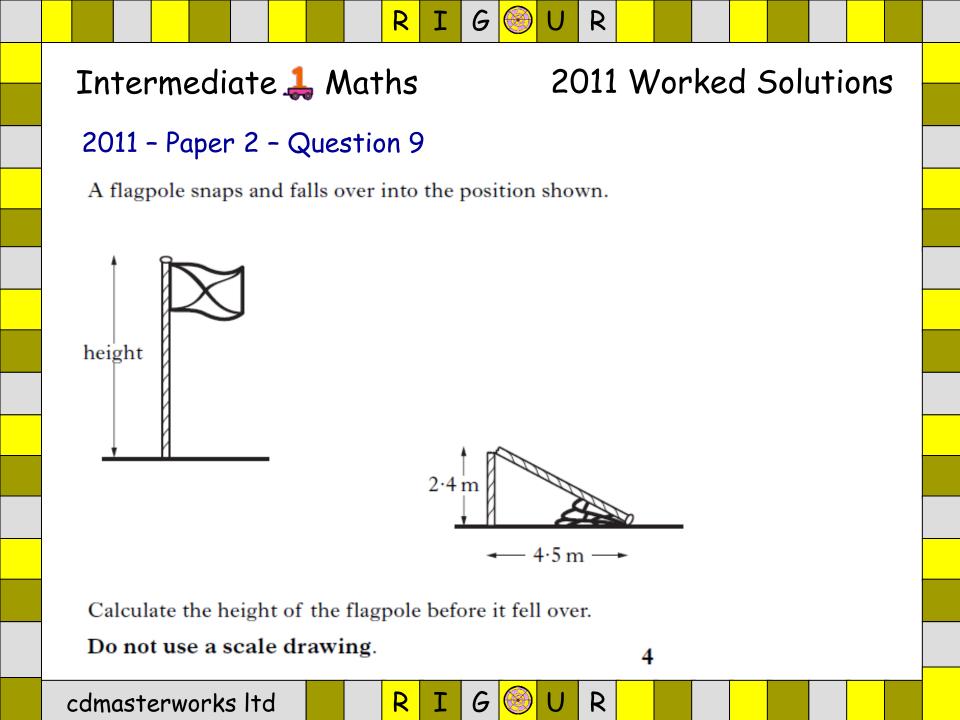
R



J

F







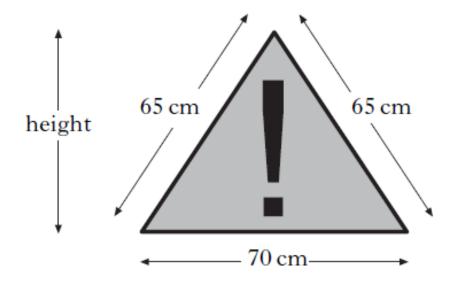
🖺 eneral Level Maths

2011 Worked Solutions

2011 - Paper 2 - Question 12

A warning sign is in the shape of an isosceles triangle.

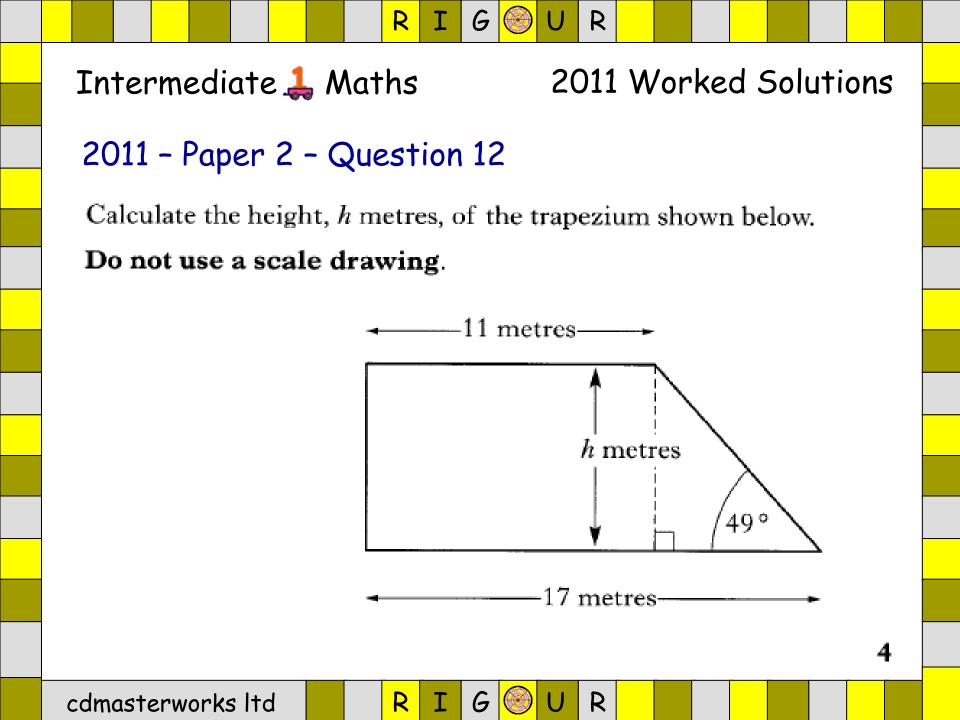




Calculate the height of the sign.



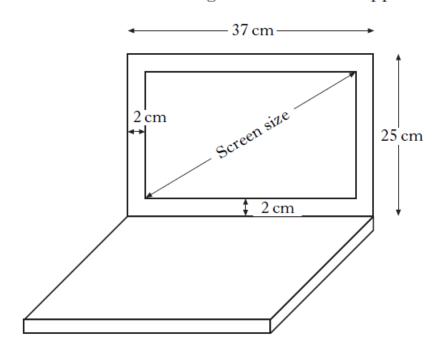




2010 Worked Solutions

2010 - Paper 2 - Question 7

The screen size of a laptop computer is the length of the diagonal from one corner of the rectangular screen to its opposite corner.

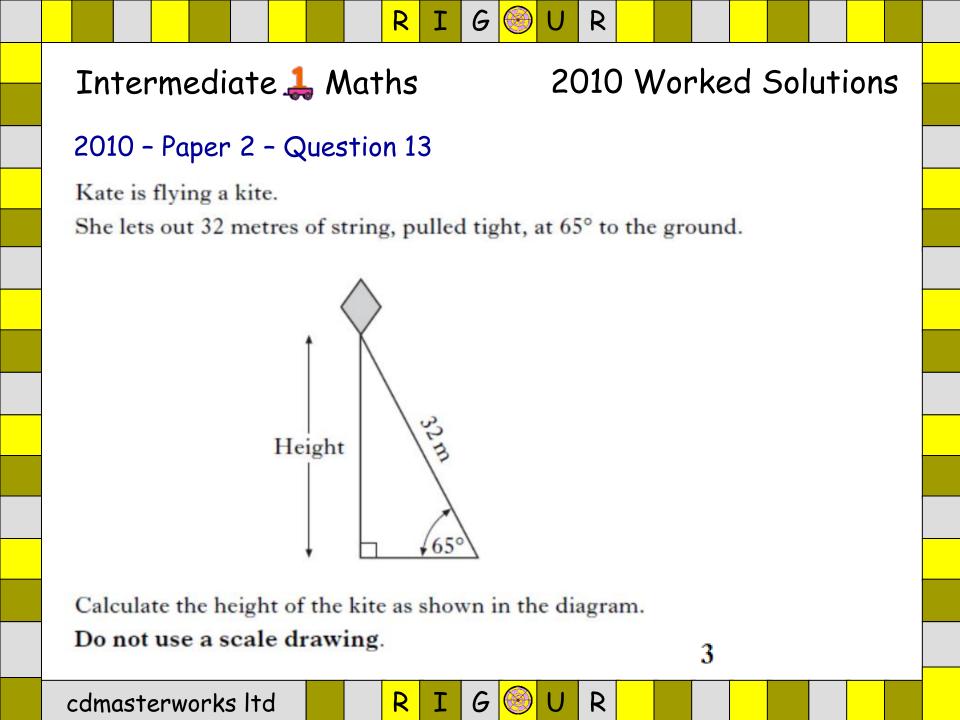


This laptop measures 37 centimetres by 25 centimetres as shown.

The frame around the screen has a width of 2 centimetres.

Calculate the screen size of this laptop.

Do not use a scale drawing.





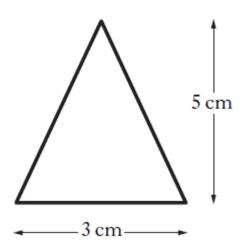
2010 Worked Solutions

2010 - Paper 2 - Question 12

An earring in the shape of an isosceles triangle is made from silver wire.

The dimensions of the earring are shown on the diagram below.





Calculate the length of silver wire needed to make a pair of earrings.

Do not use a scale drawing.



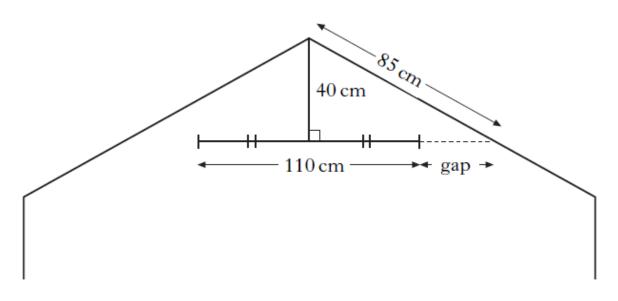


2009 Worked Solutions

2009 - Paper 2 - Question 12

The diagram below shows the position of a ceiling fan in a conservatory.





- The fan is 40 centimetres below the top of the conservatory.
- The sloping roof measures 85 centimetres to the level of the fan.
- The fan measures 110 centimetres across.

Calculate the size of the gap between the edge of the fan and the sloping roof.

Do not use a scale drawing.



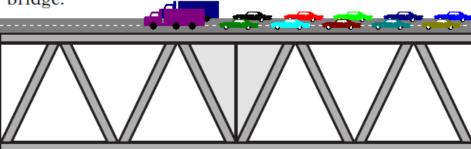




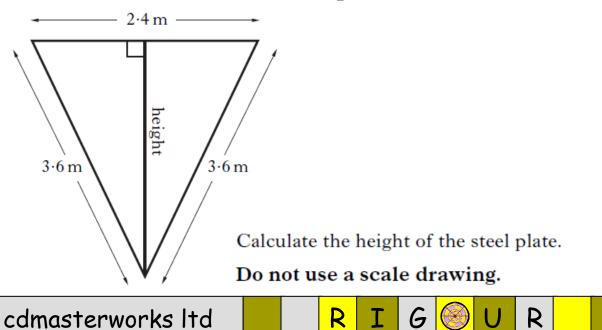
2009 Worked Solutions

2009 - Paper 2 - Question 8

A steel plate in the shape of an isosceles triangle is used to strengthen a bridge.



The dimensions of the isosceles triangle are shown below.



2008 Worked Solutions

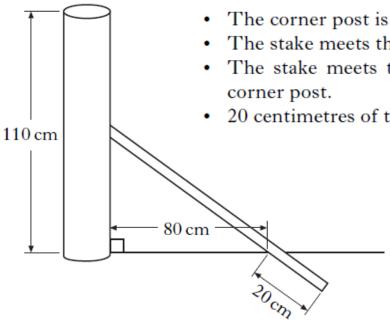
2008 - Paper 2 - Question 7

A farmer is building a wire fence around a field.

The fence has heavy posts at the corners.

Each corner post is supported by a stake as shown in the diagram.





- The corner post is 110 centimetres high.
- The stake meets the corner post halfway up.
- The stake meets the ground 80 centimetres from the foot of the corner post.
- 20 centimetres of the stake is below ground level.

Calculate the length of the stake.

Do not use a scale drawing.



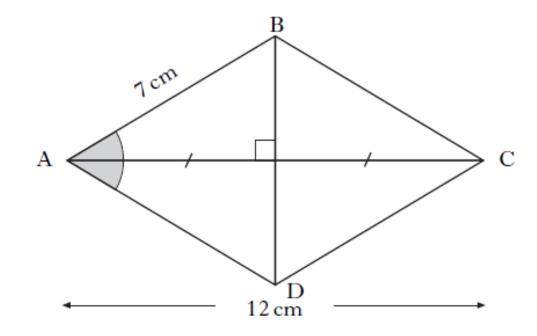


2009 Worked Solutions

2009 - Paper 2 - Question 10

ABCD is a rhombus.

Side AB is 7 centimetres and diagonal AC is 12 centimetres as shown.



Calculate the size of the shaded angle BAD.

Do not use a scale drawing.



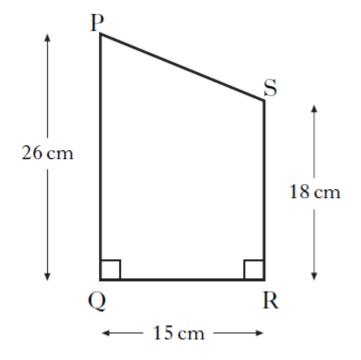


eneral Level Maths

2008 - Paper 2 - Question 5

Lewis is designing a bird box for his garden.

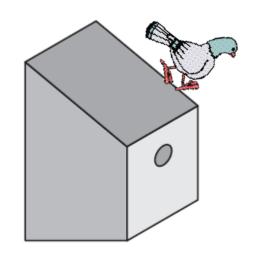
The dimensions for the side of the box are shown in the diagram below.



Calculate the length of side PS.

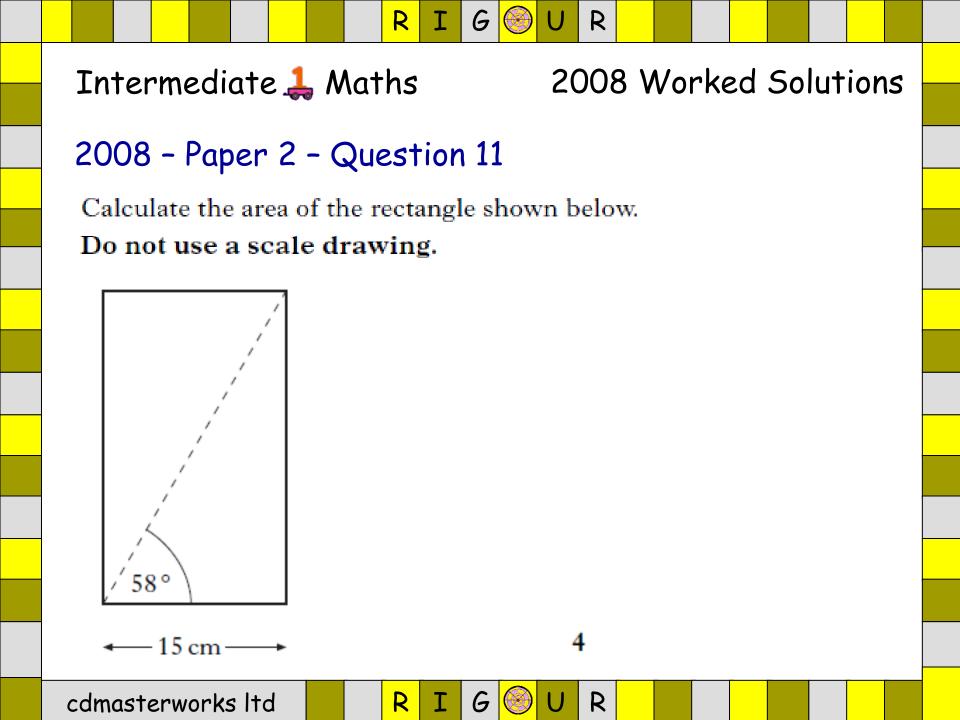
Do not use a scale drawing.

2008 Worked Solutions









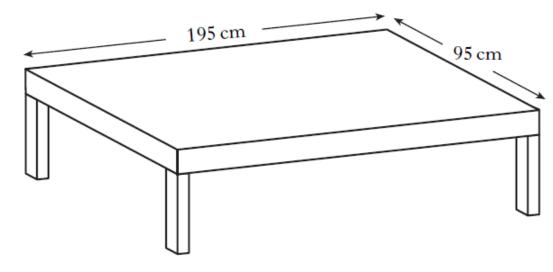
2007 Worked Solutions

2007 - Paper 2 - Question 9

Phil is making a wooden bed frame.

The frame is rectangular and measures 195 centimetres by 95 centimetres.





To make the frame rigid, Phil is going to add a piece of wood along one of its diagonals.

He has a piece of wood 2.2 metres long.

Is this piece of wood long enough to fit along the diagonal?

Give a reason for your answer.

Do not use a scale drawing.





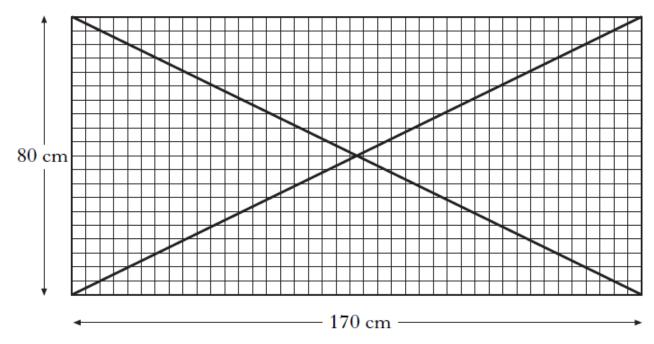


2007 Worked Solutions

2007 - Paper 2 - Question 4

A rectangular metal grill for a window is shown below.

Two diagonal metal bars strengthen the grill.



Find the length of one of the metal bars.

Round your answer to the nearest centimetre.

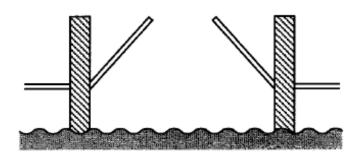
Do not use a scale drawing.



2006 Worked Solutions

2006 - Paper 2 - Question 12

A road bridge can be raised in the **centre** to allow ships to pass through.



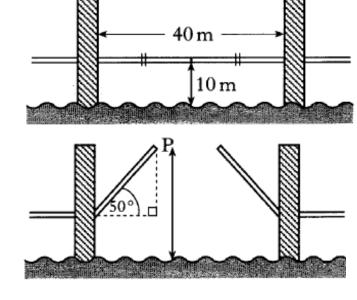
The moveable sections of the bridge are:

- 10 metres above the water level
- · 40 metres long altogether.

The moveable sections are raised through 50° to allow a ship to pass through.

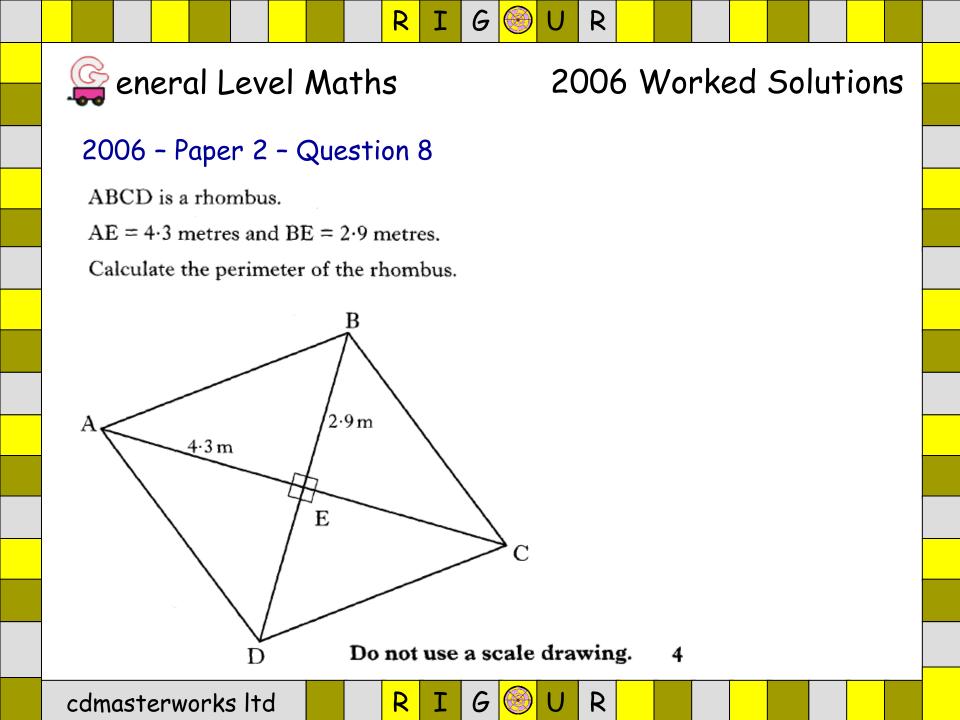
Calculate the height of the point P above the water level.

Do not use a scale drawing.







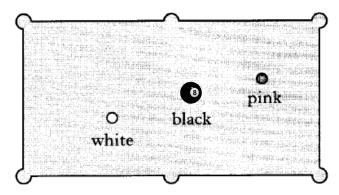


2006 Worked Solutions

2006 - Paper 2 - Question 9

Stephen is playing snooker.

The diagram below shows the positions of three balls on the table.



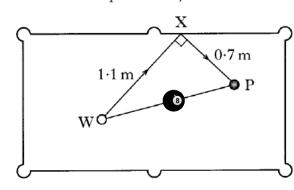
Stephen plays the white ball, W.

It bounces off the side of the table at X and hits the pink ball, P.

- Distance WX is 1.1 metres
- Distance XP is 0.7 metres
- Angle WXP is 90°

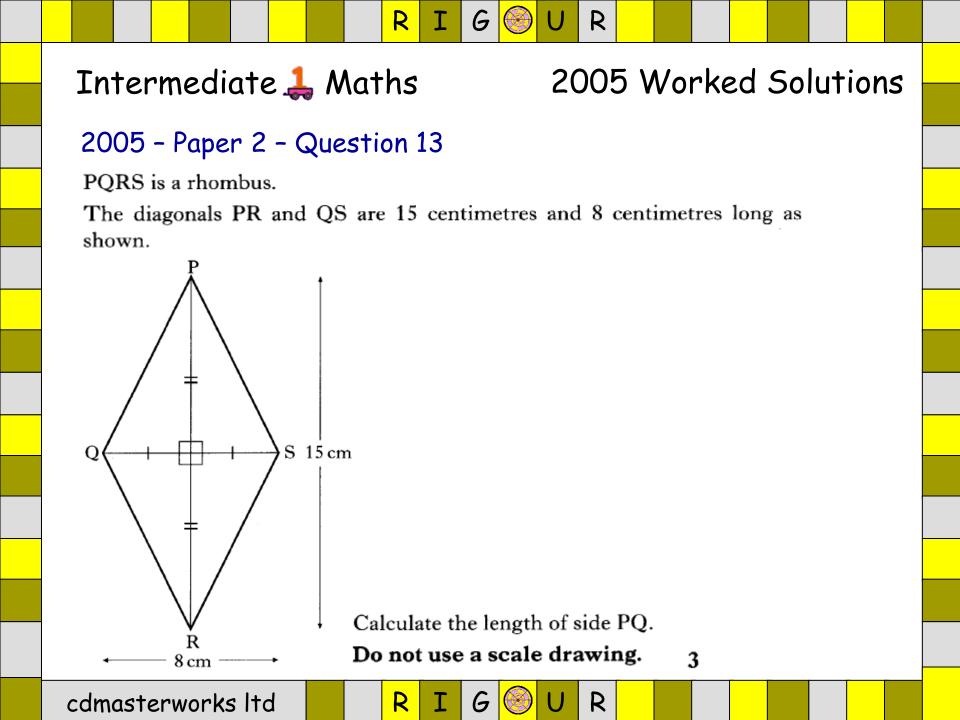
Calculate distance WP.

Do not use a scale drawing.









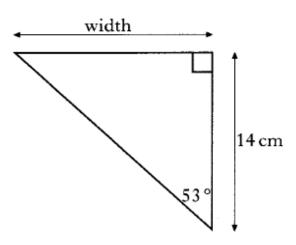


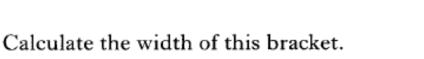
2005 Worked Solutions

2005 - Paper 2 - Question 10

A rectangular shelf is supported by brackets as shown.

Each bracket is a right angled triangle.





Give your answer correct to one decimal place.

Do not use a scale drawing.

4

R

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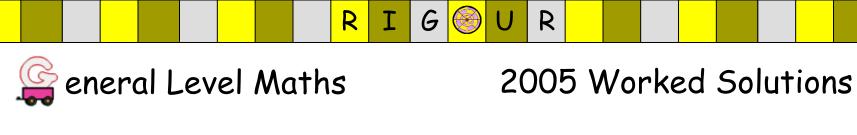
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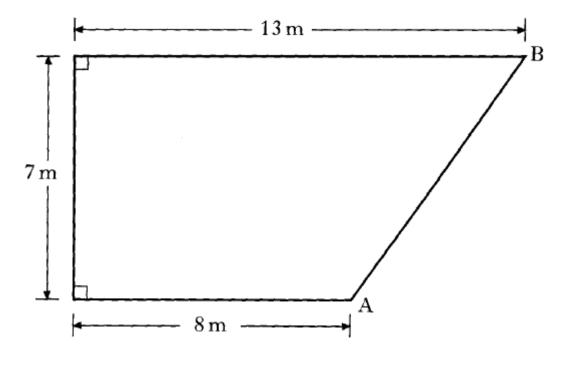
l

J



2005 - Paper 2 - Question 4

The diagram below shows the shape of Sangita's garden. Sangita plants a hedge along side AB.



Calculate the length of the hedge.

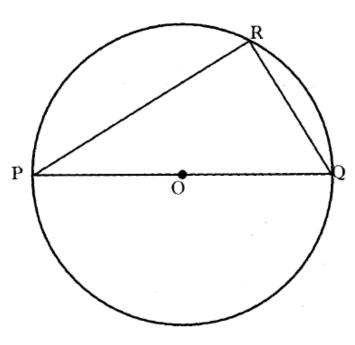
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eneral Level Maths

2004 Worked Solutions

2004 - Paper 2 - Question 5



PQ is a diameter of the circle with centre O.

R is a point on the circumference of the circle.

PR is 12 centimetres.

RQ is 5.5 centimetres.

Calculate the length of the radius of the circle.



Pause the video and try the question!

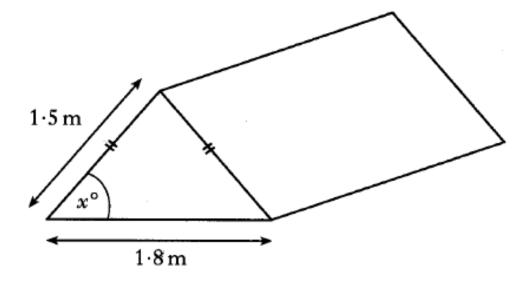


R

cdmasterworks Itd



The front of the tent shown below is an isosceles triangle.



The size of the angle between the side and the bottom of the tent is x° .

Calculate x.

R



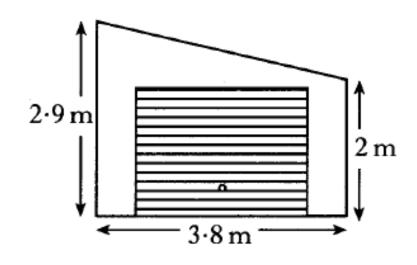


2003 Worked Solutions

2003 - Paper 2 - Question 9



The diagram shows the front view of a garage.



Calculate the length of the sloping edge of the roof. Do not use a scale drawing.



Pause the video and try the question!

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2003 Worked Solutions

2003 - Paper 2 - Question 11

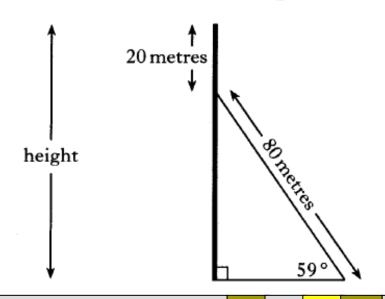
A television mast is supported by wires.

The diagram below shows one of the wires which is 80 metres long. The wire is attached to the mast 20 metres from the top and makes an angle of 59° with the ground.

Calculate the height of the mast.

Give your answer to the nearest metre.

Do not use a scale drawing.



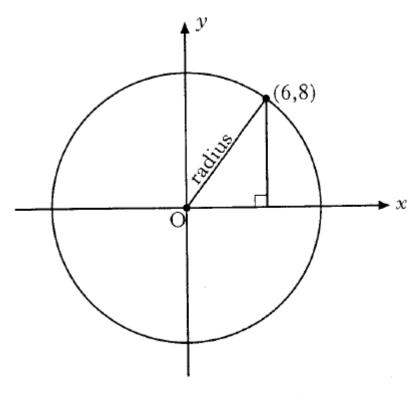
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2002 Worked Solutions

2002 - Paper 2 - Question 8

The circle shown below has centre (0,0).

The point (6,8) lies on the circle.



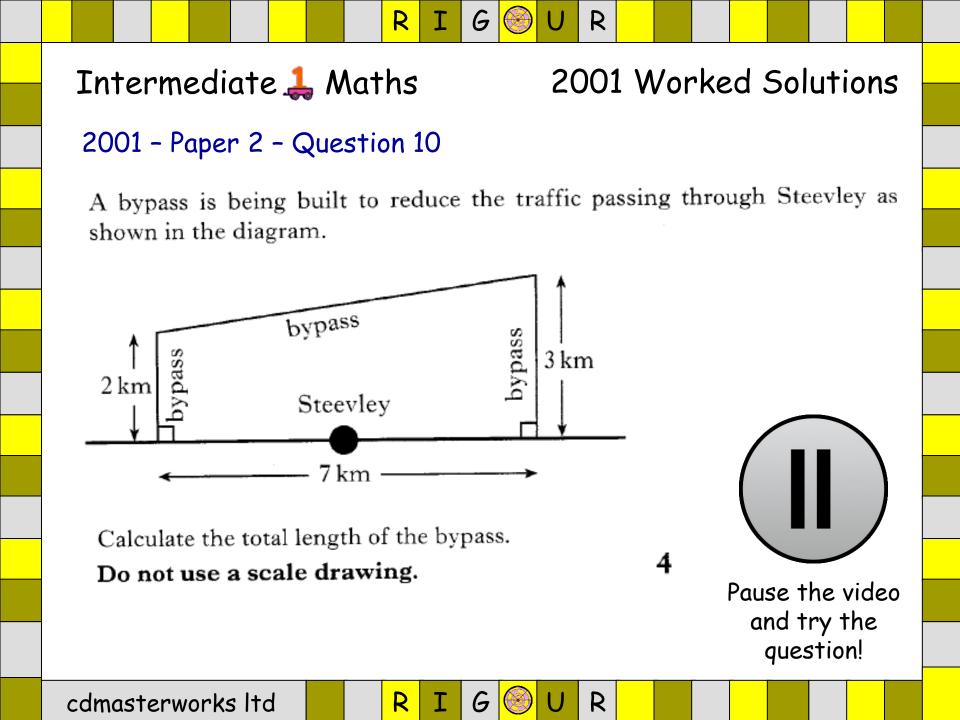
Work out the area of this circle.



Pause the video and try the question!

R

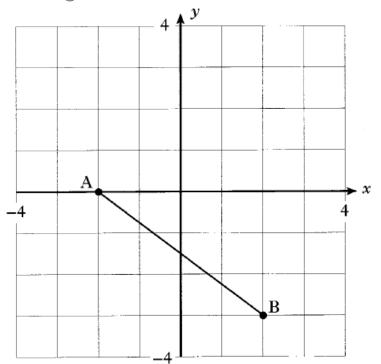
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2000 Worked Solutions

2000 - Paper 1 - Question 3

(a) Write down the coordinates of the points A and B marked on this diagram.



(b) Calculate the length of the line joining A to B.

Do not measure with a ruler.

You must show your working.



Pause the video and try the question!



