



## Lite GCSE Maths

### Trigonometry & Pythagoras 2

Name: \_\_\_\_\_

Class: \_\_\_\_\_

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Author:

Date:

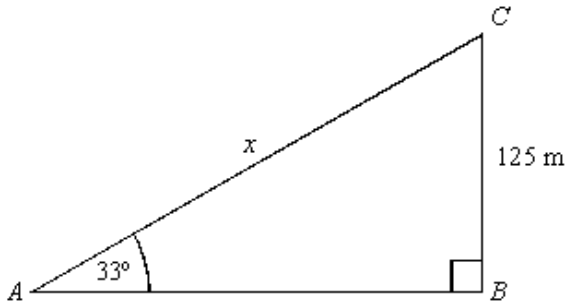
Time: 35

Marks: 29

Comments:

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- Q1.**  $ABC$  is a right-angled triangle.  
 $BC = 125$  m.  
 Angle  $CAB = 33^\circ$ .



Not drawn accurately

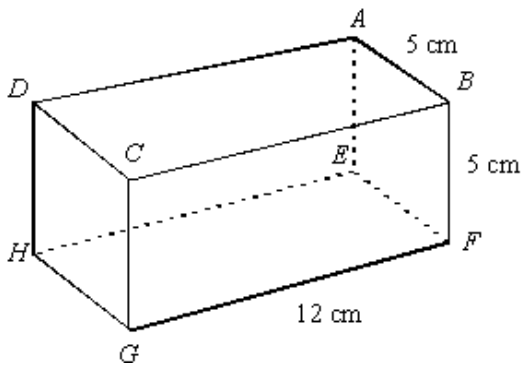
Find the length of  $AC$  (marked  $x$  in the diagram).  
 Give your answer to an appropriate degree of accuracy.

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Answer ..... m

**(Total 4 marks)**

- Q2.**  $ABCDEFGH$  is a cuboid with sides of 5 cm, 5 cm and 12 cm as shown.



Not to scale

Calculate angle  $DFH$ .

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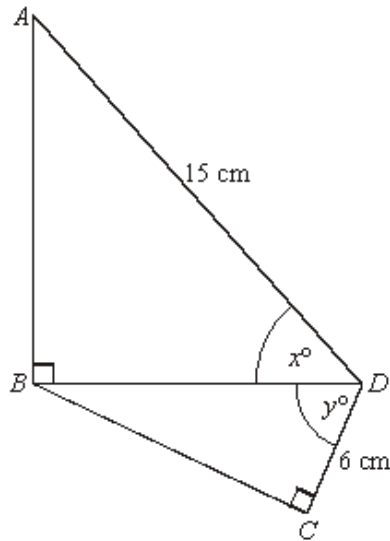
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Answer ..... degrees

(Total 5 marks)

- Q3.** The diagram shows two right-angled triangles.  
 $AD = 15$  cm.  
 $CD = 6$  cm.



Not to scale

- (a) Given that  $\cos x^\circ = \frac{2}{3}$ , calculate the length  $BD$ .

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Answer  $BD =$  .....

(2)

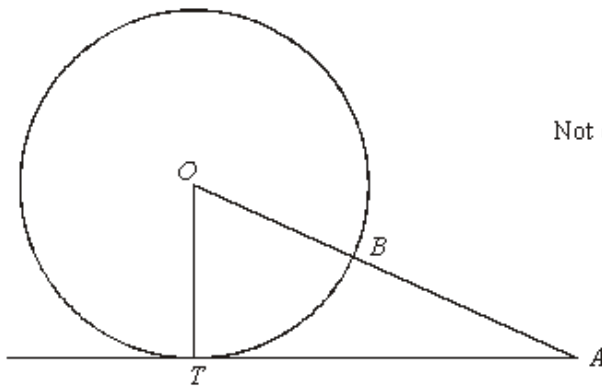
(b) Find the value of  $\sin y^\circ$ .

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Answer  $\sin y^\circ =$  .....

(3)  
(Total 5 marks)

**Q4.** The diagram shows a circle with centre  $O$  and radius 2.5 cm.  
 $TA$  is a tangent to the circle, of length 6 cm.  
The line from  $A$  to the centre  $O$  of the circle cuts the circumference at  $B$ .



Not drawn accurately

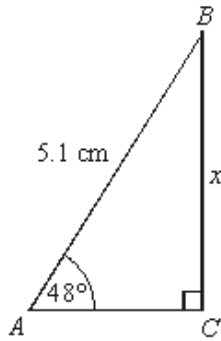
Calculate the length of  $AB$ .

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Answer ..... cm

(Total 4 marks)

- Q5.** (a)  $ABC$  is a right-angled triangle.  
 $AB = 5.1$  cm  
 $\angle CAB = 48^\circ$



Not drawn accurately

Find the length of  $BC$  (marked  $x$  in the diagram).  
Give your answer to a suitable degree of accuracy.

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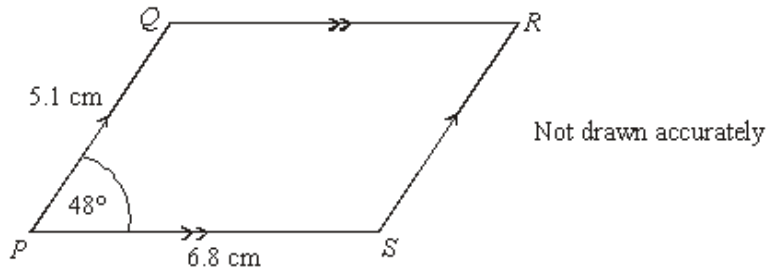
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Answer ..... cm

(4)

- (b)  $PQRS$  is a parallelogram.  
 $PQ = 5.1$  cm  
 $PS = 6.8$  cm  
 $\angle QPS = 48^\circ$



Calculate the area of  $PQRS$ .

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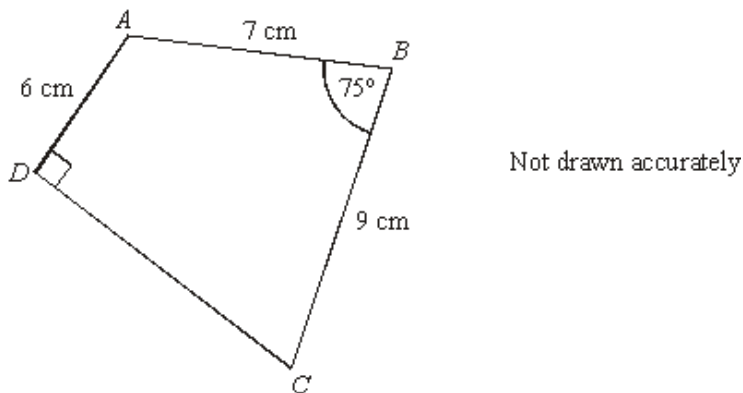
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Answer ..... cm<sup>2</sup>

(2)  
 (Total 6 marks)

- Q6.**  $ABCD$  is a quadrilateral.  
 $AB = 7$  cm,  $AD = 6$  cm and  $BC = 9$  cm.  
 Angle  $ABC = 75^\circ$  and angle  $ADC = 90^\circ$



Calculate the perimeter of  $ABCD$ .

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Answer ..... cm

**(Total 5 marks)**

