

**AQA – Mensuration and calculations – GCSE 2022 Mathematics****1. June/2022/Paper\_8300/3F/No.16**

An empty container is a cylinder of radius 3.5 cm and height 40 cm

A tennis ball is a sphere of radius 3.5 cm

Will six of the tennis balls fit in the container?

Tick a box.

Yes  No

Show working to support your answer.

**[2 marks]**

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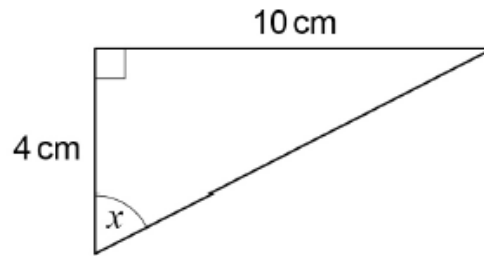
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2. June/2022/Paper\_8300/3F/No.21

Use trigonometry to work out the size of angle  $x$ .



Not drawn  
accurately

[3 marks]

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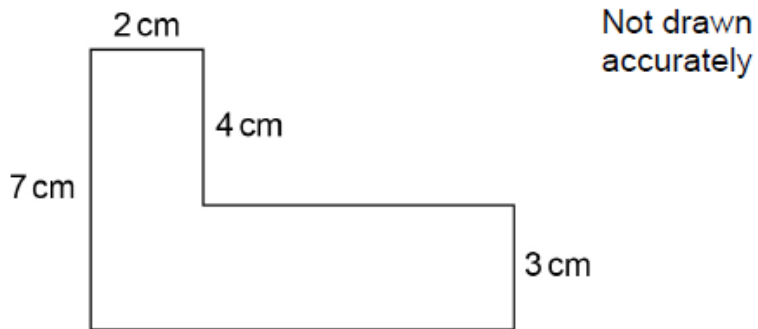
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$x =$  \_\_\_\_\_  $^{\circ}$

3. June/2022/Paper\_8300/3F/No.25

The L-shape is made from rectangles.



The area is  $44 \text{ cm}^2$

Work out the perimeter.

[3 marks]

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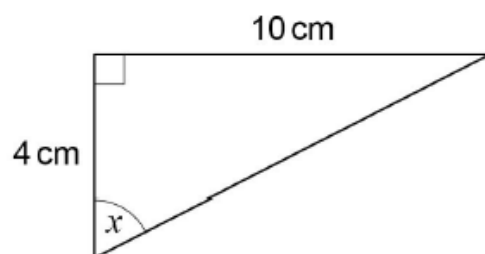


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Answer \_\_\_\_\_ cm

## 4. June/2022/Paper\_8300/3H/No.4

Use trigonometry to work out the size of angle  $x$ .



Not drawn  
accurately

[3 marks]

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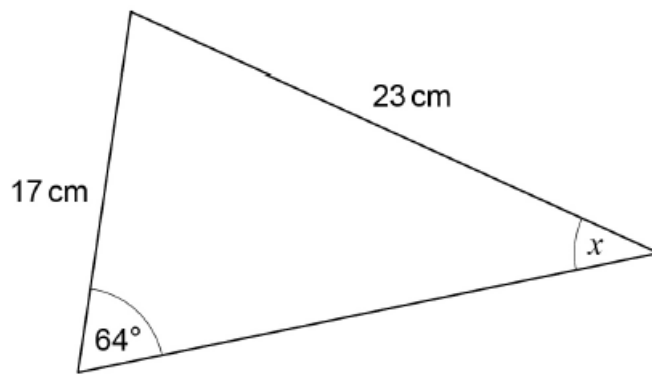
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$$x = \underline{\hspace{10em}}^{\circ}$$

5. June/2022/Paper\_8300/3H/No.21

Not drawn  
accuratelyUse the sine rule to work out the size of angle  $x$ .**[3 marks]**

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$$x = \underline{\hspace{10em}}^\circ$$