

- ① Sophie is watching a film at the cinema. The film started at 13 30. The film is 110 minutes long.



When the film ends, Sophie takes 15 minutes to get to the train station.

A train leaves the station at 15 40. Does Sophie get to the train station in time to get the train?

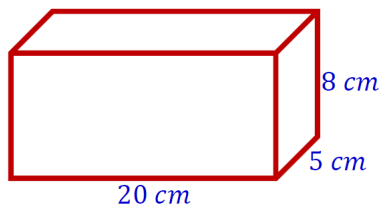
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Calculations and Answer

Green Pen Corrections and Notes

(3)

- ② (a) Here is a cuboid. Work out the volume of the cuboid.



- (b) $a = \begin{pmatrix} 4 \\ 5 \end{pmatrix}$ $b = \begin{pmatrix} 7 \\ -4 \end{pmatrix}$ Find $2a - 3b$ as a column vector.

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Calculations and Answer

(5)

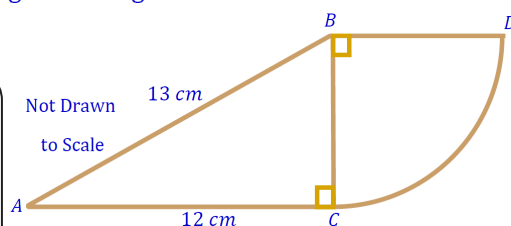
- ③ The diagram shows a right – angled triangle and a quarter circle.

The right – angled triangle ABC has $\angle ACB = 90^\circ$. The quarter circle has centre B and radius BC .

Work out the area of the quarter circle. Give your answer correct to 3 significant figures.

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Calculations and Answer



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(4)