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- A28** Solve these simultaneous equations.
 Show all your working.
 Do **not** use trial and improvement.

$$\begin{aligned} 9x + 11y &= 15 \\ 4x + 4y &= 4 \end{aligned}$$

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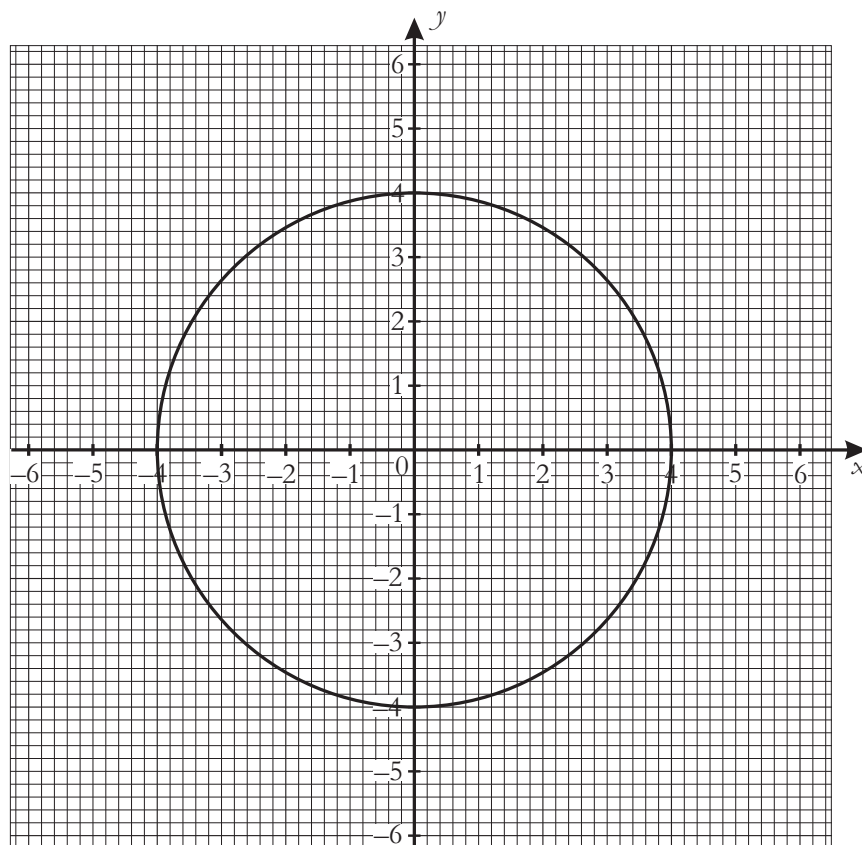
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Answer $x = \dots\dots\dots$, $y = \dots\dots\dots$ (3 marks)

- A29 (a)** Write down the equation of the circle.



Answer (2 marks)

- (b)** By drawing a suitable line on the graph, find the coordinates of the points of intersection of the circle and the line $y = 4 - x$.

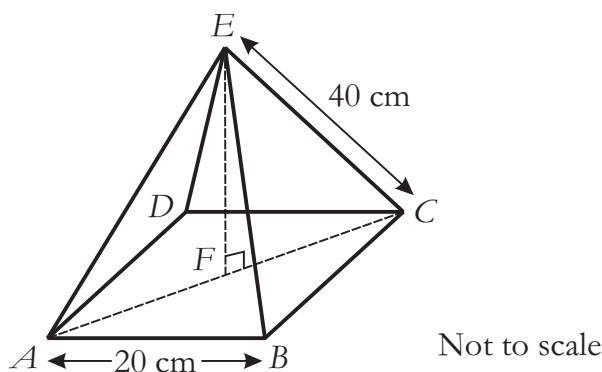
Answer (.....,), (.....,) (2 marks)

Shape, Space & Measures

3D TRIGONOMETRY & PYTHAGORAS' THEOREM



S42 In this square-based pyramid,
 E is vertically above F ,
 the midpoint of AC .
 $AB = 20$ cm and $EC = 40$ cm.



(a) Calculate the length AF .

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Answer..... cm (2 marks)

(b) Find the angle between EC and the base $ABCD$.

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Answer.....degrees (3 marks)

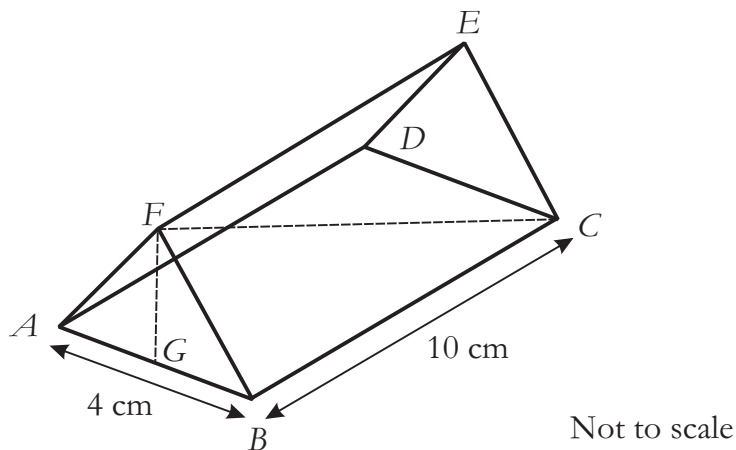
(c) Calculate the height of the pyramid EF .

.....

Answer..... cm (3 marks)



S43 In this triangular prism,
 F is vertically above G ,
 the midpoint of AB .
 $AB = 4$ cm and $BC = 10$ cm.



(a) Given that angle $AFB = 40^\circ$, write down the size of angle FAB .

Answer..... degrees (1 mark)