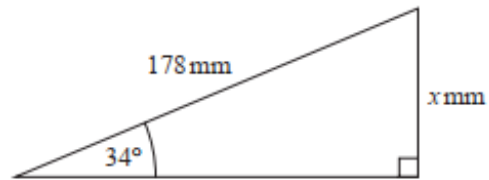


SOHCAHTOA (TRIGONOMETRY)

Pearson Edexcel – Thursday 4 June 2020 - Paper 2 (Calculator) Higher Tier

1.

5



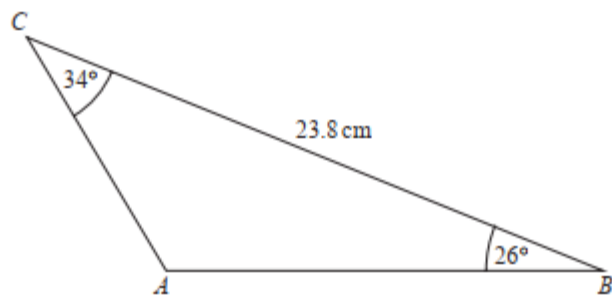
Work out the value of x .
Give your answer correct to 1 decimal place.

(Total for Question 5 is 2 marks)

Pearson Edexcel – Thursday 4 June 2020 - Paper 2 (Calculator) Higher Tier

2.

13 Here is triangle ABC .



Work out the length of AB .
Give your answer correct to 1 decimal place.

..... cm

(Total for Question 13 is 3 marks)

Pearson Edexcel - Tuesday 21 May 2019 - Paper 1 (Non-Calculator) Higher Tier

3.

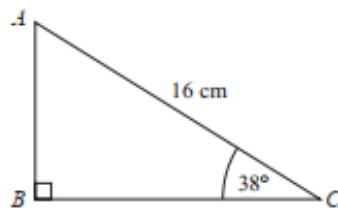
- 14 Find the exact value of $\tan 30^\circ \times \sin 60^\circ$
Give your answer in its simplest form.

(Total for Question 14 is 2 marks)

Pearson Edexcel - Thursday 6 June 2019 - Paper 2 (Calculator) Higher Tier

4.

- 5 $\triangle ABC$ is a right-angled triangle.



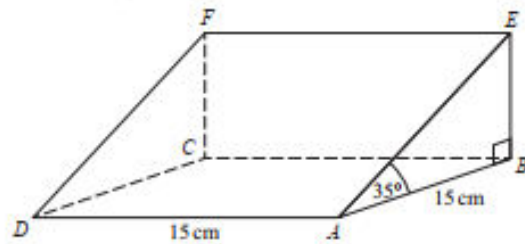
Calculate the length of AB .
Give your answer correct to 2 decimal places.

.....cm

(Total for Question 5 is 2 marks)

5.

19 The diagram shows a triangular prism.



The base, $ABCD$, of the prism is a square of side length 15 cm.

Angle ABE and angle CBE are right angles.

Angle $EAB = 35^\circ$

M is the point on DA such that

$$DM:MA = 2:3$$

Calculate the size of the angle between EM and the base of the prism.

Give your answer correct to 1 decimal place.

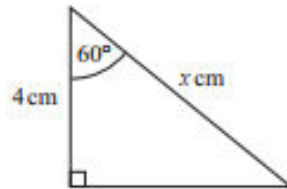
(Total for Question 19 is 4 marks)

6.

8 (a) Write down the exact value of $\tan 45^\circ$

.....
(1)

Here is a right-angled triangle.



$\cos 60^\circ = 0.5$

(b) Work out the value of x .

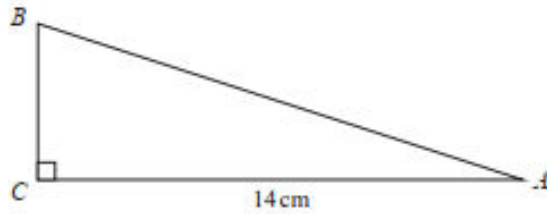
.....
(2)

.....
(Total for Question 8 is 3 marks)

Pearson Edexcel - Monday 12 November 2018 - Paper 3 (Calculator) Higher Tier

7.

6 $\triangle ABC$ is a right-angled triangle.



$AC = 14$ cm.
Angle $C = 90^\circ$

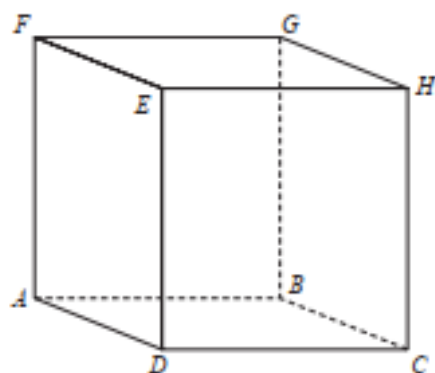
size of angle B : size of angle $A = 3 : 2$

Work out the length of AB .
Give your answer correct to 3 significant figures.

.....cm

(Total for Question 6 is 4 marks)

18 $ABCDEFGH$ is a cuboid.



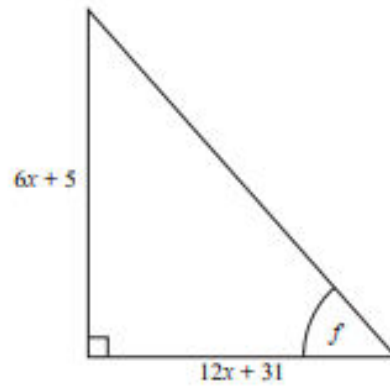
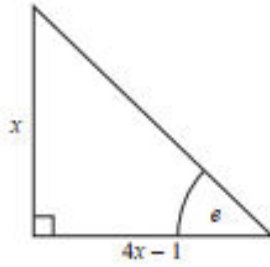
$AB = 7.3$ cm
 $CH = 8.1$ cm
Angle $BCA = 48^\circ$

Find the size of the angle between AH and the plane $ABCD$.
Give your answer correct to 1 decimal place.

.....
(Total for Question 18 is 4 marks)

9.

19 Here are two right-angled triangles.



Given that

$$\tan \epsilon = \tan f$$

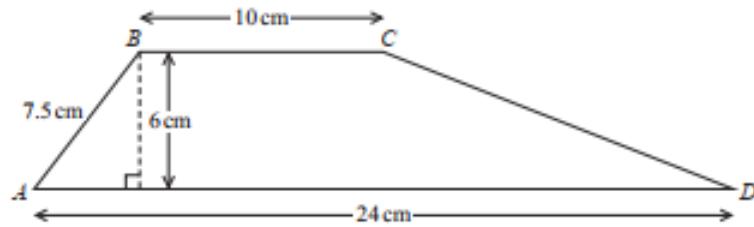
find the value of x .

You must show all your working.

(Total for Question 19 is 5 marks)

10.

7 $ABCD$ is a trapezium.

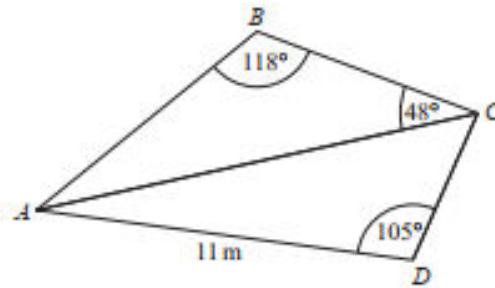


Work out the size of angle $CD A$.
Give your answer correct to 1 decimal place.

(Total for Question 7 is 5 marks)

11.

17 ABC and ADC are triangles.



The area of triangle ADC is 56 m^2

Work out the length of AB .

Give your answer correct to 1 decimal place.

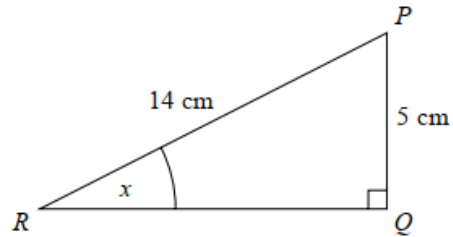
..... m

(Total for Question 17 is 5 marks)

Pearson Edexcel - Sample Paper 2 - (Calculator) Higher Tier

12.

2 PQR is a right-angled triangle.



Work out the size of the angle marked x .
Give your answer correct to 1 decimal place.

.....

(Total for Question 2 is 2 marks)

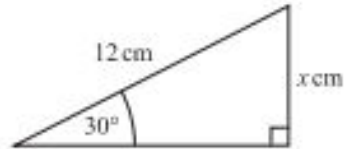
Pearson Edexcel - Specimen Papers Set 1 - Paper 1 (Non-Calculator) Higher Tier

13.

7 (a) Write down the exact value of $\cos 30^\circ$

.....
(1)

(b)



Given that $\sin 30^\circ = 0.5$,
work out the value of x .

.....
(2)

.....
(Total for Question 7 is 3 marks)

Pearson Edexcel - Thursday 9 June 2016 - Paper 2 (Calculator) Higher Tier

14.

17

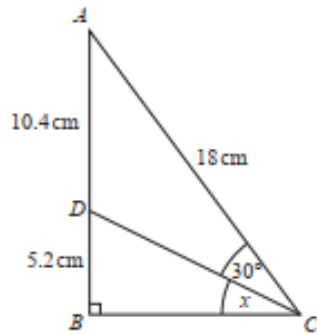


Diagram NOT
accurately drawn

ABC is a right-angled triangle.
 D is a point on AB .

Angle $ACD = 30^\circ$
 $AD = 10.4$ cm
 $DB = 5.2$ cm
 $AC = 18$ cm

Work out the size of the angle marked x .
Give your answer correct to 1 decimal place.

.....°

(Total for Question 17 is 4 marks)

Pearson Edexcel - Thursday 9 June 2016 - Paper 2 (Calculator) Higher Tier

15.

25

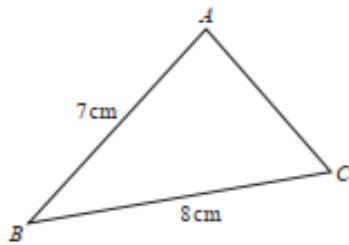


Diagram **NOT**
accurately drawn

ABC is an acute-angled triangle.

$BA = 7$ cm

$BC = 8$ cm

The area of triangle ABC is 18 cm².

Work out the size of angle BAC .

Give your answer correct to 3 significant figures.

You must show all your working.

(Total for Question 25 is 6 marks)

*20 The diagram shows a ladder leaning against a vertical wall.

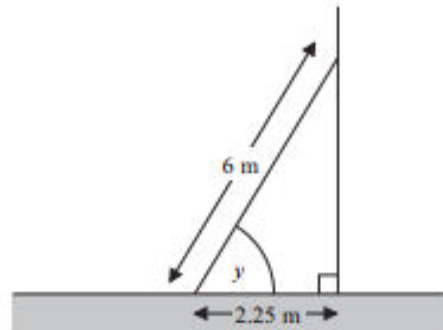


Diagram NOT
accurately drawn

The ladder stands on horizontal ground.

The length of the ladder is 6 m.

The bottom of the ladder is 2.25 m from the bottom of the wall.

A ladder is safe to use when the angle marked y is about 75° .

Is the ladder safe to use?

You must show all your working.

(Total for Question 20 is 3 marks)

14. PQR is a right-angled triangle.

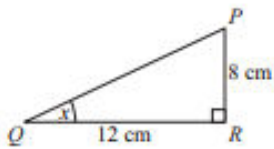


Diagram NOT
accurately drawn

$PR = 8\text{ cm}$.
 $QR = 12\text{ cm}$.

- (a) Find the size of the angle marked x .
Give your answer correct to 1 decimal place.

..... °
(3)

XYZ is a different right-angled triangle.

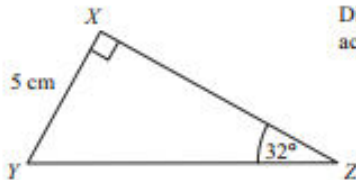


Diagram NOT
accurately drawn

$XY = 5\text{ cm}$.
Angle $Z = 32^\circ$.

- (b) Calculate the length YZ .
Give your answer correct to 3 significant figures.

..... cm
(3)

(Total 6 marks)

18.

16

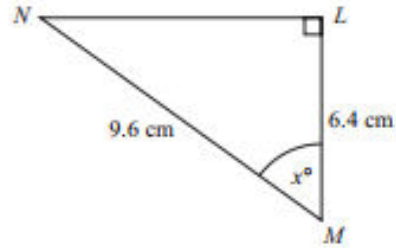


Diagram NOT
accurately drawn

LMN is a right-angled triangle.
 $MN = 9.6 \text{ cm}$.
 $LM = 6.4 \text{ cm}$.

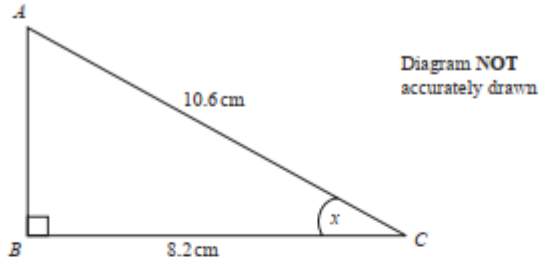
Calculate the size of the angle marked x° .
Give your answer correct to 1 decimal place.

.....°

(Total for Question 16 is 3 marks)

19.

23.



ABC is a right-angled triangle.
 $AC = 10.6$ cm.
 $BC = 8.2$ cm.

Calculate the size of the angle marked x .
Give your answer correct to 3 significant figures.

.....

(Total 3 marks)

20.

19 (a) Write down the value of $\sin 45^\circ$.

(a) [1]

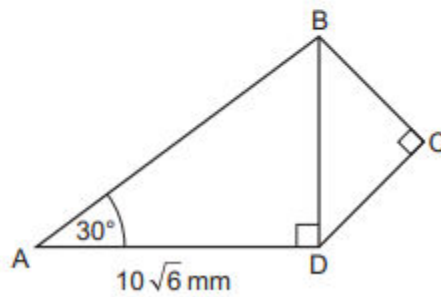
(b) ADB and BCD are right-angled triangles.

$BC = CD$.

$AD = 10\sqrt{6}$ mm.

Angle $BAD = 30^\circ$.

$$\tan 30^\circ = \frac{1}{\sqrt{3}}$$

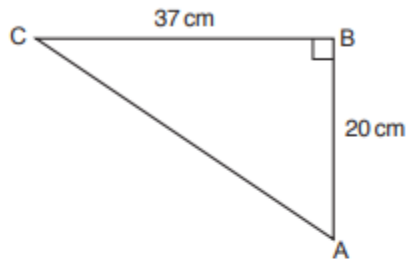


Not to scale

Work out the length of BC.

21.

- 5 ABC is a right-angled triangle.
AB = 20 cm and BC = 37 cm.



Not to scale

Calculate angle BAC.

..... ° [3]

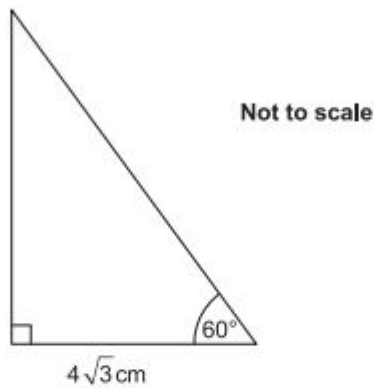
OCR GCSE – Sample Papers – Paper 5 (Non - Calculator) Higher Tier

22.

17 (a) Write down the exact value of $\tan 60^\circ$.

(a) [1]

(b) Find the exact area of this triangle.

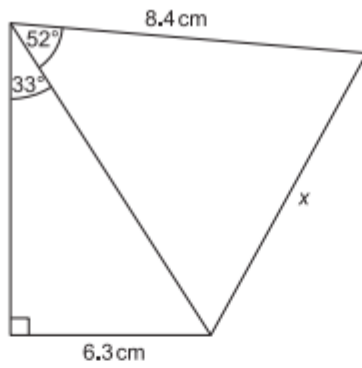


(b) cm^2 [4]

OCR GCSE – Sample Papers – Paper 6 (Calculator) Higher Tier

23.

13 Calculate x .

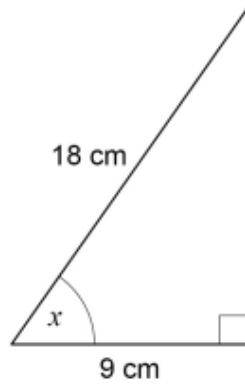


Not to scale

..... cm [5]

24.

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



Not drawn accurately

[2 marks]

Answer _____ degrees

25.

24 y is an obtuse angle.

Which statement is true?

Tick **one** box.

[1 mark]

$\sin y > 0$ and $\cos y > 0$

$\sin y > 0$ and $\cos y < 0$

$\sin y < 0$ and $\cos y > 0$

$\sin y < 0$ and $\cos y < 0$

AQA GCSE – Tuesday 21 May 2019 – Paper 1 (Non - Calculator) Higher Tier

26.

27 Angle x is acute.

$$\cos x = \sin 60^\circ \times \tan 30^\circ$$

Work out the size of angle x .

You **must** show your working.

[3 marks]

Answer _____ degrees

AQA GSCE – Tuesday 6 November 2018 – Paper 1 (Non - Calculator) Higher Tier

27.

4 Circle the value of $\cos 30^\circ$

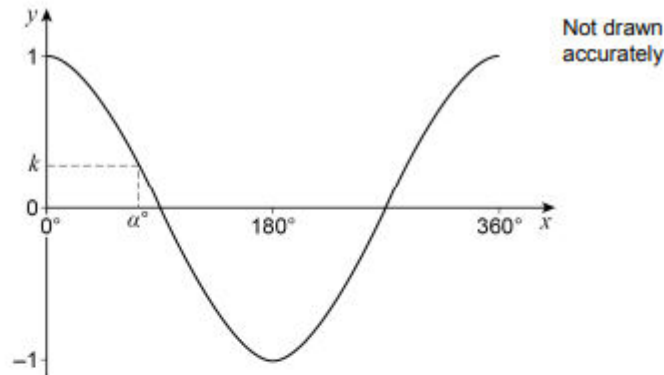
[1 mark]

- $\frac{1}{2}$
 $\frac{\sqrt{3}}{2}$
 0
 1

AQA GSCE – Tuesday 6 November 2018 – Paper 1 (Non - Calculator) Higher Tier

28.

27 Here is a sketch of $y = \cos x$ for values of x from 0° to 360°



α° is an acute angle.

$\cos \alpha^\circ = k$

27 (a) Circle the value of $\cos (180^\circ - \alpha^\circ)$

[1 mark]

- $1 - k$
 k
 $-k$
 $-1 - k$

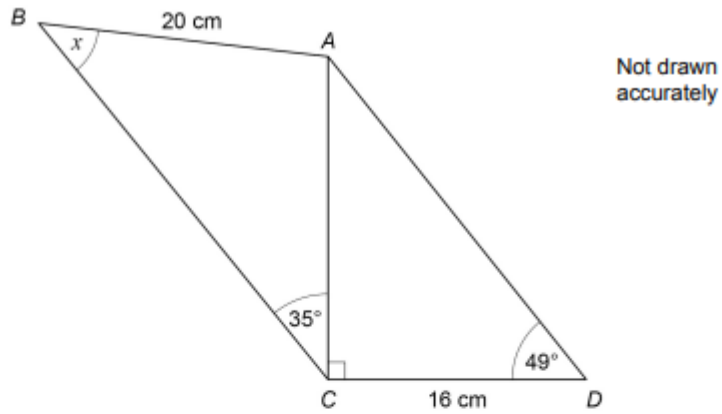
27 (b) Circle the value of $\cos (360^\circ + \alpha^\circ)$

[1 mark]

- $k - 1$
 $k + 1$
 $-k$
 k

29.

25 *ABC* and *ACD* are triangles.



Work out the size of angle x .

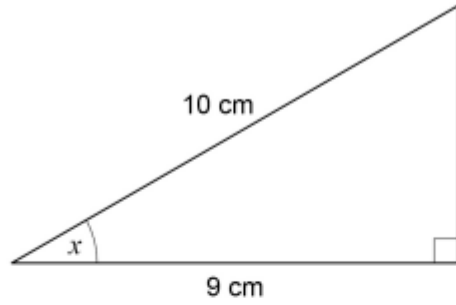
[5 marks]

Answer _____ degrees

30.

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

[2 marks]



Not drawn accurately

Answer _____ degrees

AQA GCSE – Monday 24 May 2018 – Paper 1 (Non - Calculator) Higher Tier

31.

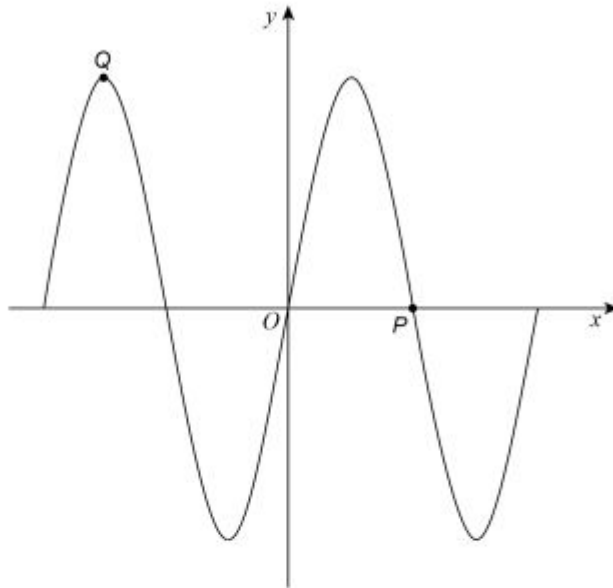
30 Show that the value of $\cos 30^\circ \times \tan 60^\circ + \sin 30^\circ$ is an integer.

[3 marks]

AQA GCSE – Thursday 2 November 2017 – Paper 1 (Non - Calculator) Higher Tier

32.

- 29 Here is a sketch of $y = \sin x^\circ$ for $-360 < x < 360$



- 29 (a) Write down the coordinates of P .

[1 mark]

Answer (_____ , _____)

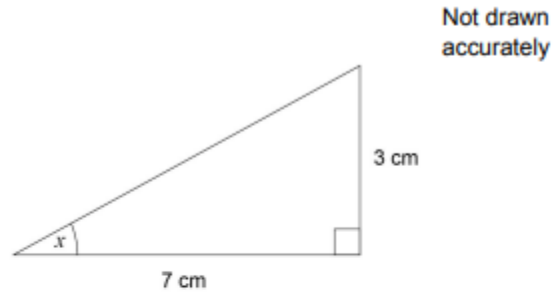
- 29 (b) Write down the coordinates of Q .

[1 mark]

Answer (_____ , _____)

33.

9 Work out the size of angle x .



[2 marks]

Answer _____ degrees

34.

29 Simplify $\frac{2 \sin 45^\circ - \tan 45^\circ}{4 \tan 60^\circ}$

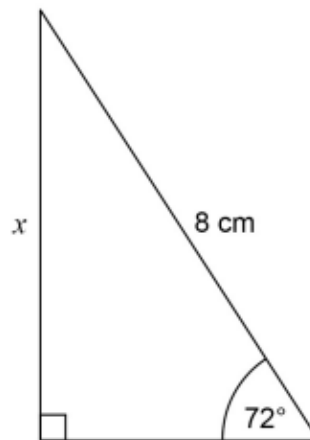
Give your answer in the form $\frac{\sqrt{a} - \sqrt{b}}{c}$ where a , b and c are integers.

[4 marks]

Answer _____

35.

7 Use trigonometry to work out the length x .



Not drawn accurately

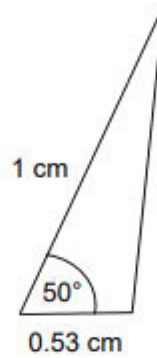
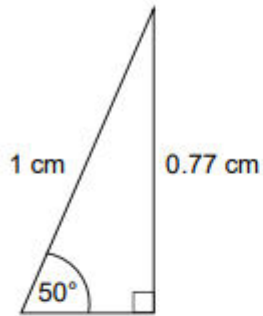
[2 marks]

Answer _____ cm

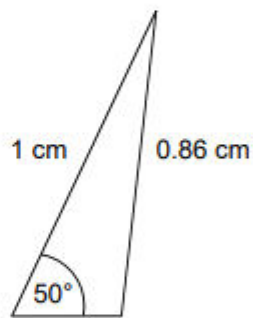
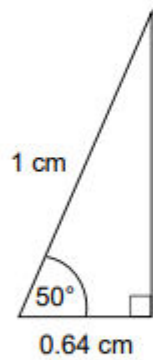
AQA GCSE – Sample Paper 1 (Non - Calculator) Higher Tier

36.

13 Here are sketches of four triangles.



Not drawn accurately



In each triangle

the longest side is **exactly** 1 cm

the other length is given to 2 decimal places.

13 (a) Circle the value of $\cos 50^\circ$ to 2 decimal places.

[1 mark]

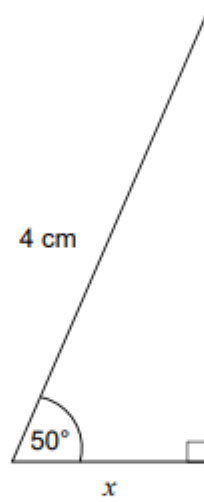
0.77

0.53

0.64

0.86

- 13 (b) Work out the value of x .
Give your answer to 1 decimal place.



Not drawn
accurately

[2 marks]

Answer _____ cm

AQA GCSE – Sample Paper 1 (Non - Calculator) Higher Tier

37.

19 Show that $12 \cos 30^\circ - 2 \tan 60^\circ$ can be written in the form \sqrt{k}
where k is an integer.

[3 marks]
