

Name: _____

GCSE Unit 5b Practice Assessment

Date:

Time: 50 minutes

Total marks available: 50

Total marks achieved: _____

Questions

Q1.

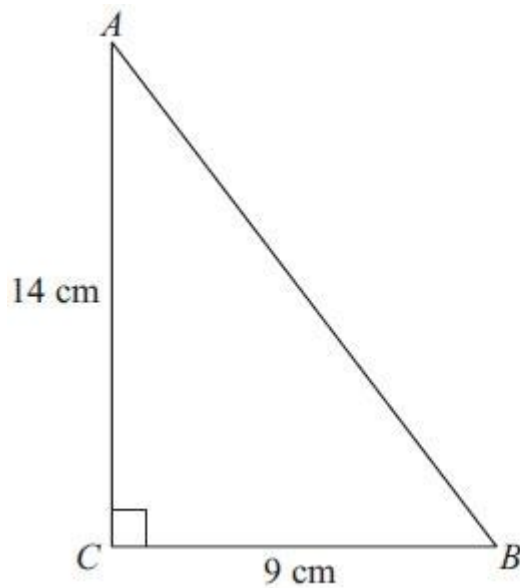


Diagram **NOT**
accurately drawn

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

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

Q2.

$ABCD$ is a trapezium.

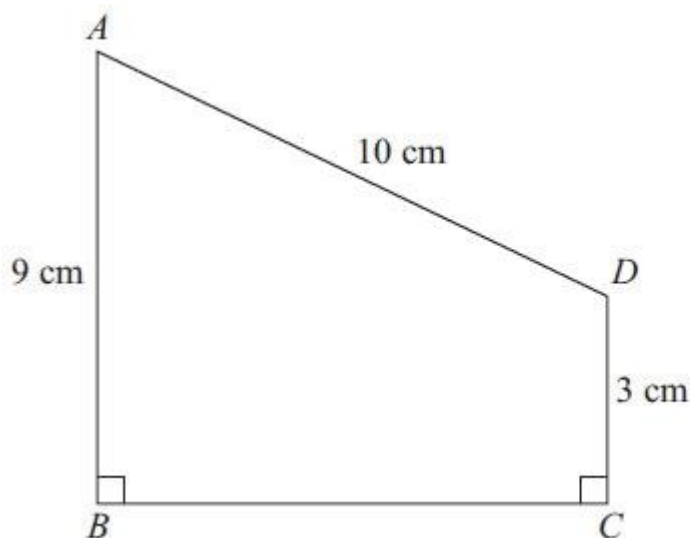


Diagram **NOT**
accurately drawn

$AD = 10\text{ cm}$

$AB = 9\text{ cm}$

$DC = 3\text{ cm}$

Angle $ABC = \text{angle } BCD = 90^\circ$

Calculate the length of AC .

Give your answer correct to 3 significant figures.

.....
(Total for Question is 5 marks)

Q3.

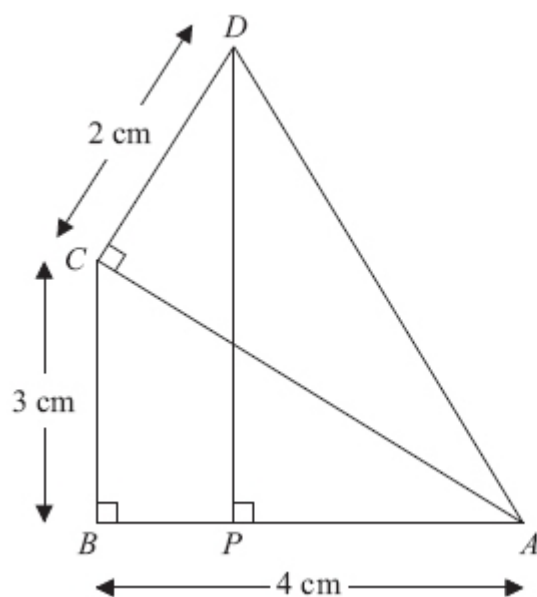


Diagram **NOT**
accurately drawn

In the diagram,

ABC , ACD and APD are right-angled triangles.

$AB = 4$ cm.

$BC = 3$ cm.

$CD = 2$ cm.

Work out the length of DP .

(Total for Question is 5 marks)

Q4.

The diagram represents a metal frame.

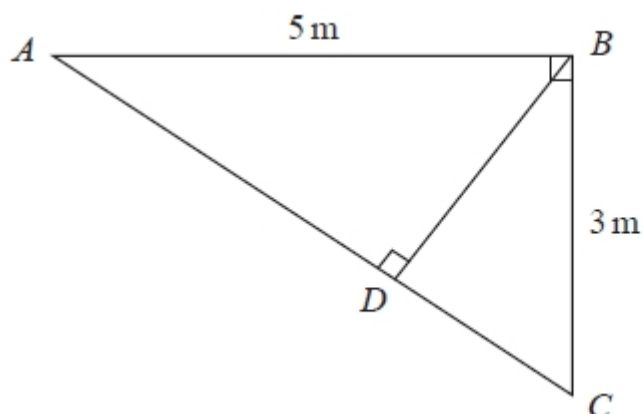


Diagram **NOT**
accurately drawn

The frame is made from four metal bars, AB , AC , BC and BD .

Angle $ABC = \text{angle } ADB = 90^\circ$

$AB = 5 \text{ m}$

$BC = 3 \text{ m}$

Work out the total length of the four metal bars of the frame.

Give your answer correct to 3 significant figures.

..... m

(Total for question = 5 marks)

Q5.

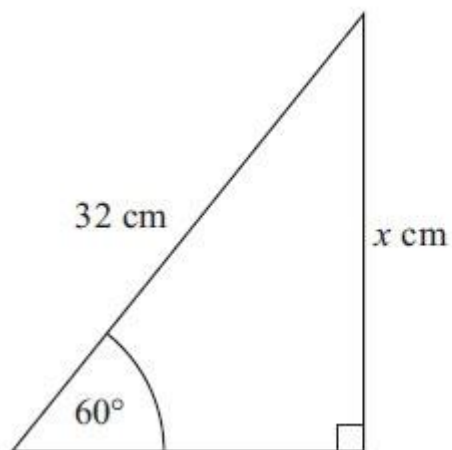


Diagram **NOT**
accurately drawn

Calculate the value of x .
Give your answer correct to 3 significant figures.

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

Q6.

Triangle ABC has a right angle at C .

Angle $BAC = 48^\circ$.

$AB = 9.3 \text{ cm}$.

Calculate the length of BC .

(Total for question = 3 marks)

Q7.

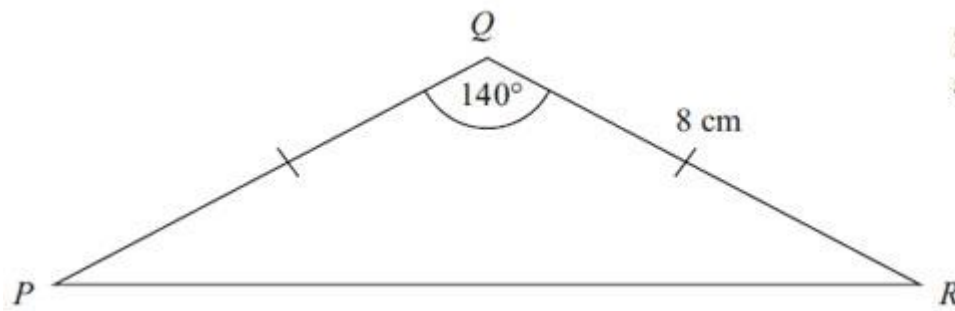


Diagram **NOT**
accurately drawn

Calculate the length of PR .
Give your answer correct to 3 significant figures.

..... cm

(Total for Question is 3 marks)

Q8.

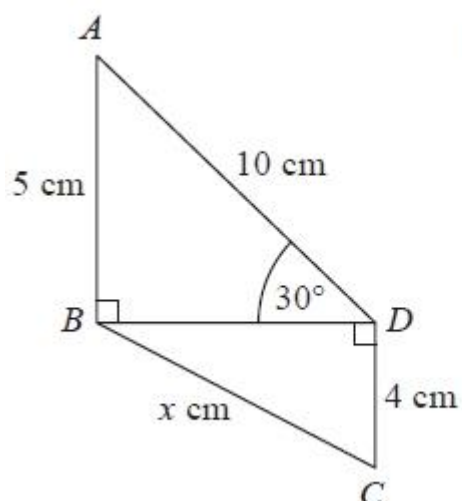


Diagram **NOT**
accurately drawn

In the diagram,

triangles ABD and BCD are right-angled triangles

$AB = 5$ cm

$AD = 10$ cm

$CD = 4$ cm

Angle $ADB = 30^\circ$

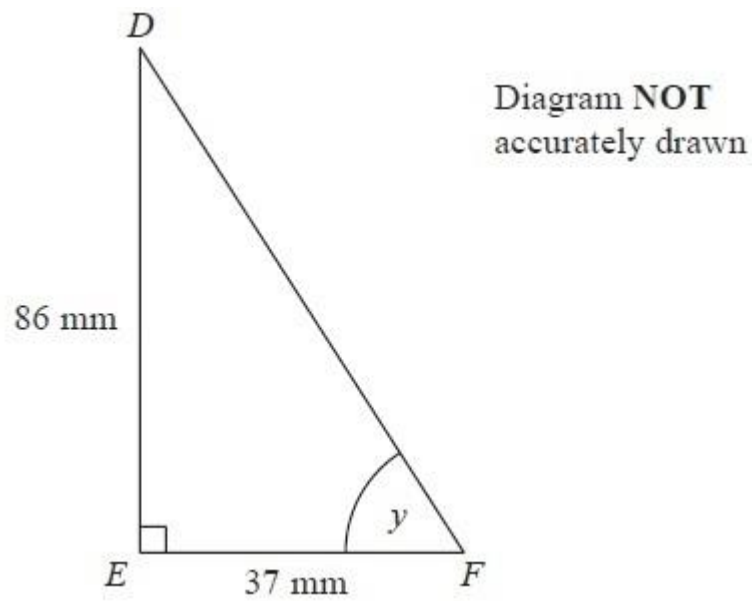
Work out the value of x .

Give your answer correct to 2 decimal places.

.....cm

(Total for question = 4 marks)

Q9.



DEF is a right-angled triangle.

$DE = 86 \text{ mm}$

$EF = 37 \text{ mm}$

Calculate the size of the angle marked y .

Give your answer correct to 1 decimal place.

.....°

(Total for Question is 3 marks)

Q10.

The diagram shows a ladder leaning against a vertical wall.

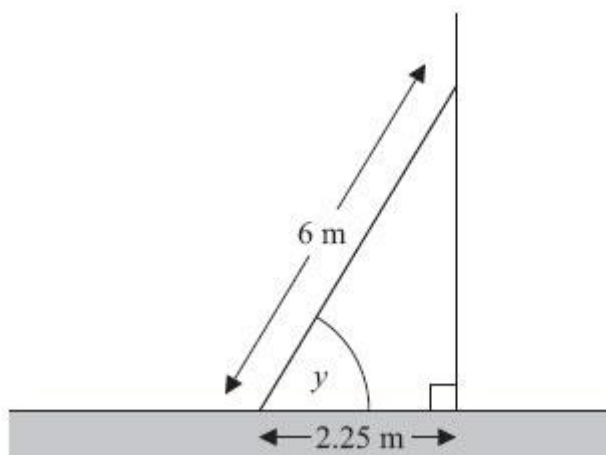


Diagram **NOT**
accurately drawn

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 is 3 marks)

Q11.

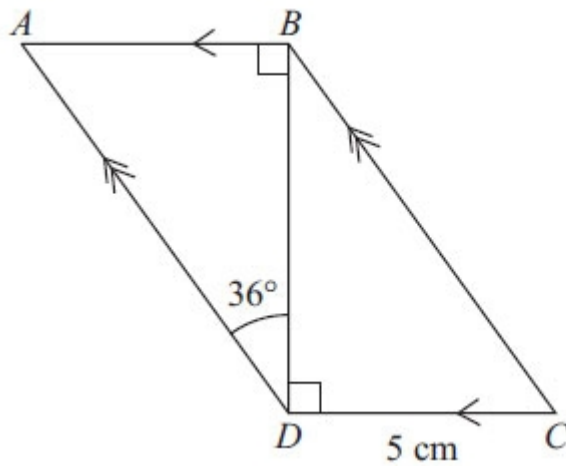


Diagram **NOT**
accurately drawn

$ABCD$ is a parallelogram.

$DC = 5\text{ cm}$

Angle $ADB = 36^\circ$

Calculate the length of AD .

Give your answer correct to 3 significant figures.

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

Q12.

The diagram shows a quadrilateral $ABCD$.

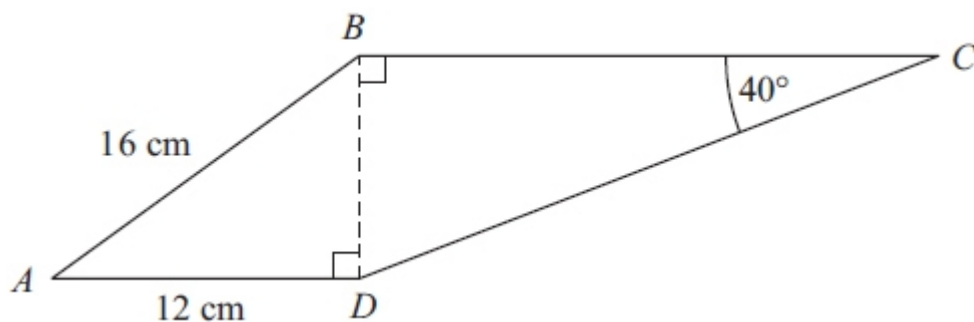


Diagram **NOT** accurately drawn

$AB = 16\text{ cm}$.

$AD = 12\text{ cm}$.

Angle $BCD = 40^\circ$.

Angle $ADB = \text{angle } CBD = 90^\circ$.

Calculate the length of CD .

Give your answer correct to 3 significant figures.

..... cm

(Total for Question is 5 marks)

Q13.

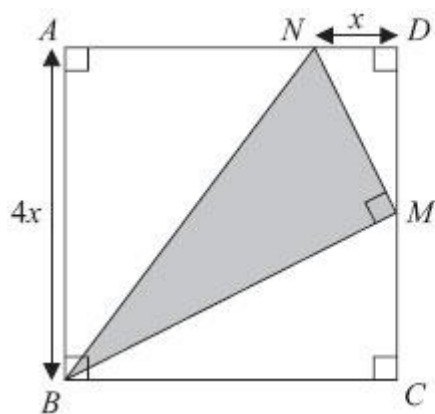


Diagram **NOT**
accurately drawn

$ABCD$ is a square with a side length of $4x$

M is the midpoint of DC .

N is the point on AD where $ND = x$

BMN is a right-angled triangle.

Find an expression, in terms of x , for the area of triangle BMN .

Give your expression in its simplest form.

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