

Write your name here

Surname

Other names

In the style of:

Edexcel GCSE

Centre Number

--	--	--	--	--	--

Candidate Number

--	--	--	--	--

Mathematics A

Trigonometry

Higher Tier

Past Paper Style Questions
Arranged by Topic

Paper Reference

1MA0/2H

You must have: Ruler graduated in centimetres and millimetres, protractor, pair of compasses, pen, HB pencil, eraser, calculator. Tracing paper may be used.

Total Marks

Instructions

- Use **black** ink or ball-point pen.
- **Fill in the boxes** at the top of this page with your name, centre number and candidate number.
- Answer **all** questions.
- Answer the questions in the spaces provided – *there may be more space than you need.*
- **Calculators may be used.**



Information

- The total mark for this paper is 100
- The marks for **each** question are shown in brackets – *use this as a guide as to how much time to spend on each question.*
- Questions labelled with an **asterisk** (*) are ones where the quality of your written communication will be assessed.

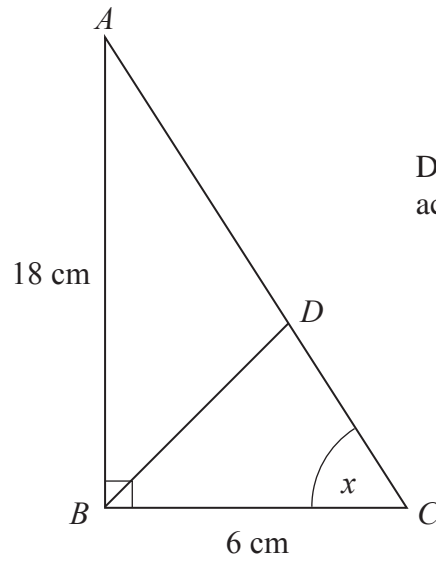
Advice

- Read each question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every question.
- Check your answers if you have time at the end.

Turn over ►



1. ABC is a right-angled triangle. $AB = 18$ cm and $BC = 6$ cm.
The line BD bisects the angle ABC .



- (a) Write down the value of $\tan x$.

.....

- (b) Calculate the length BD .

(1)

..... cm

(5)

(Total 6 marks)



2. Here is a right-angled triangle.

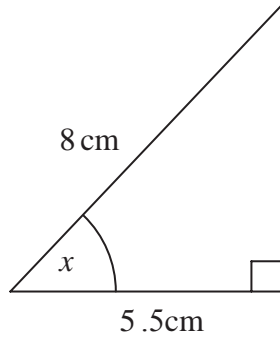


Diagram **NOT** accurately drawn

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

$$x = \text{.....}^\circ$$

(3)

Here is another right-angled triangle.

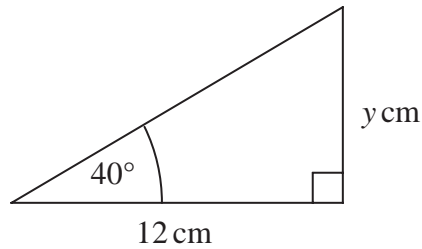


Diagram **NOT** accurately drawn

- (b) Calculate the value of y .
Give your answer correct to 1 decimal place.

$$y = \text{.....}$$

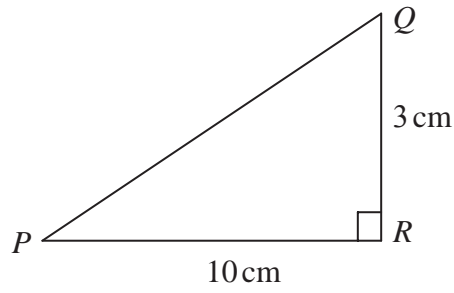
(3)

(Total 6 marks)



3.

Diagram **NOT**
accurately drawn



PQR is a right-angled triangle.

$QR = 3$ cm
 $PR = 10$ cm

Work out the size of angle RPQ .
Give your answer correct to 3 significant figures.

.....^o

(Total 3 marks)



4.

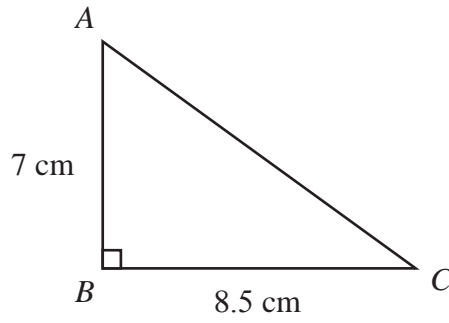


Diagram **NOT** accurately drawn

ABC is a right-angled triangle.

$AB = 7$ cm,

$BC = 8.5$ cm.

(a) Work out the area of the triangle.

..... cm^2
(2)

(b) Work out the length of AC .

Give your answer correct to 2 decimal places.

..... cm
(3)



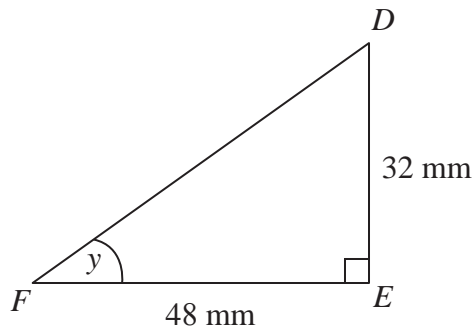


Diagram **NOT**
accurately drawn

DEF is another right-angled triangle.

$DE = 32\text{ mm}$,

$FE = 48\text{ mm}$.

- (c) Calculate the size of angle y .
Give your answer correct to 1 decimal place.

.....
(3)

(Total 8 marks)



5.

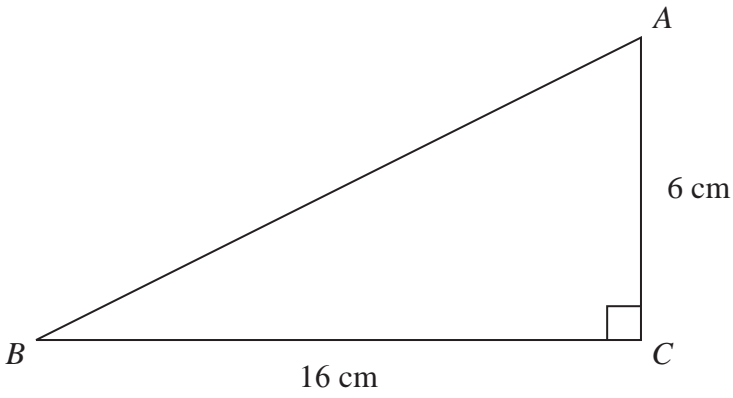


Diagram **NOT**
accurately drawn

ABC is a right-angled triangle.

$AC = 6$ cm.

$BC = 16$ cm.

(a) Work out the area of triangle ABC .

..... cm^2
(2)

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

..... cm
(3)

(Total 5 marks)



6.

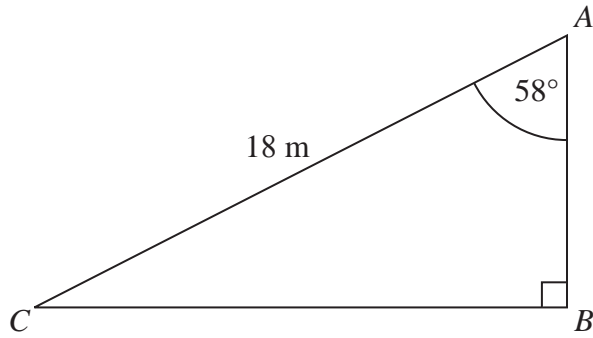


Diagram **NOT**
accurately drawn

ABC is a right-angled triangle.

$AC = 18$ m.

Angle $CAB = 58^\circ$

Calculate the length of AB .

Give your answer correct to 3 significant figures.

..... m

(Total 3 marks)



7.

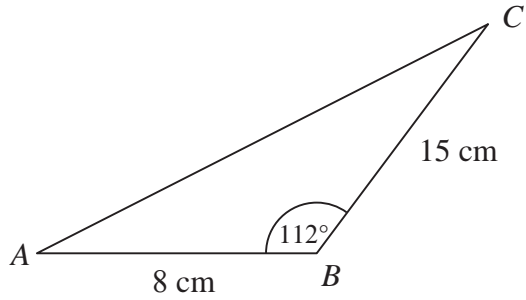


Diagram **NOT**
accurately drawn

ABC is a triangle.

$AB = 8$ cm

$BC = 15$ cm

Angle $ABC = 112^\circ$

Calculate the area of the triangle.

Give your answer correct to 3 significant figures.

..... cm²

(Total 3 marks)



8. Town B is 4.6 km due West of town C .
Town A is 2.3 km due North of town B .

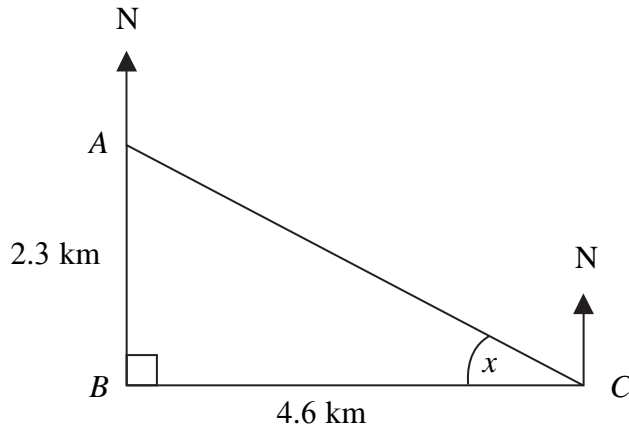


Diagram **NOT**
accurately drawn

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

$$x = \dots\dots\dots^\circ$$

(3)

- (b) Find the bearing of town C from town A .
Give your answer correct to 3 significant figures.

$$\dots\dots\dots^\circ$$

(1)

(Total 4 marks)



9.

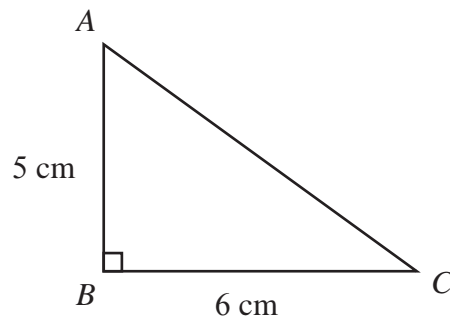


Diagram **NOT**
accurately drawn

ABC is a right-angled triangle.

$AB = 5$ cm,

$BC = 6$ cm.

(a) Work out the area of the triangle.

..... cm^2
(2)

(b) Work out the length of AC .
Give your answer correct to 2 decimal places.

..... cm
(3)



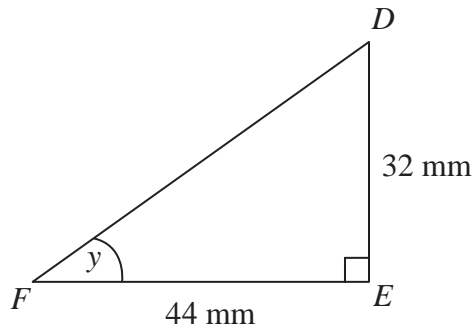


Diagram **NOT**
accurately drawn

DEF is another right-angled triangle.

$DE = 32$ mm,

$FE = 44$ mm.

- (c) Calculate the size of angle y .
Give your answer correct to 1 decimal place.

.....
(3)

(Total 8 marks)



10.

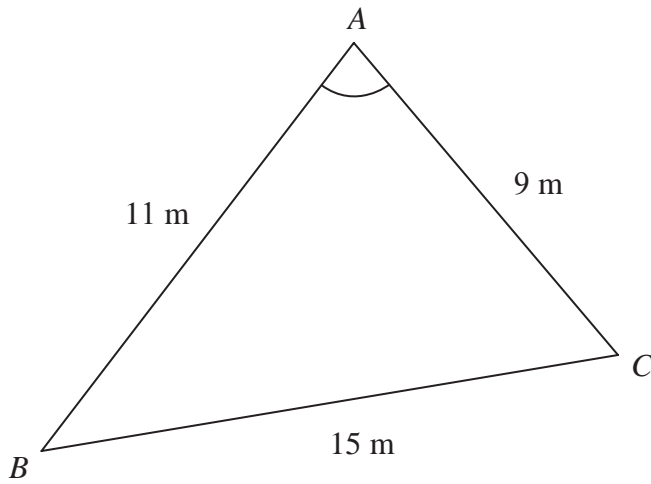


Diagram **NOT**
accurately drawn

ABC is a triangle.

$AB = 11$ m.

$AC = 9$ m.

$BC = 15$ m.

Calculate the size of angle BAC .

Give your answer correct to one decimal place.

.....
(Total 3 marks)



11.

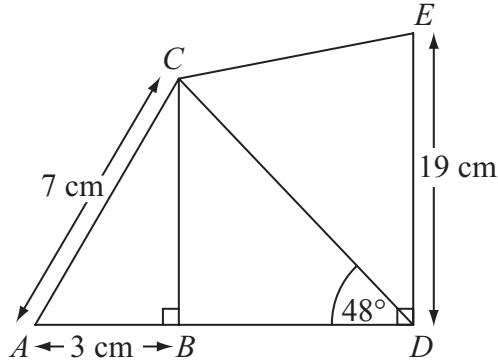


Diagram **NOT** accurately drawn

$AC = 7 \text{ cm.}$

$AB = 3 \text{ cm.}$

$DE = 19 \text{ cm.}$

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

Angle $BDC = 48^\circ.$

- (a) Calculate the length of CD .
Give your answer correct to 3 significant figures.

..... cm
(4)

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

..... cm
(3)



12

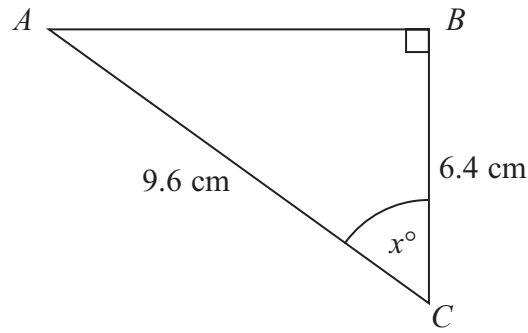


Diagram **NOT**
accurately drawn

ABC is a right-angled triangle.
 $AC = 9.6\text{ cm}$.
 $BC = 6.4\text{ cm}$.

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

.....
(Total 3 marks)



BLANK PAGE

