

Geometry Problems Foundation

Please write clearly in block capitals

Forename:

Surname:

Materials

For this paper you must have:

- mathematical instruments



You **can** use a calculator.

Instructions

- Use black ink or black ball-point pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions.
- You must answer the questions in the spaces provided. Do not write outside the box around each page or on blank pages.
- Do all rough work in this book. Cross through any work you do not want to be marked.

Information

- The marks for questions are shown in brackets.
- You may ask for graph paper, tracing paper and more answer paper. These must be tagged securely to this answer book.

Advice

- In all calculations, show clearly how you work out your answer.

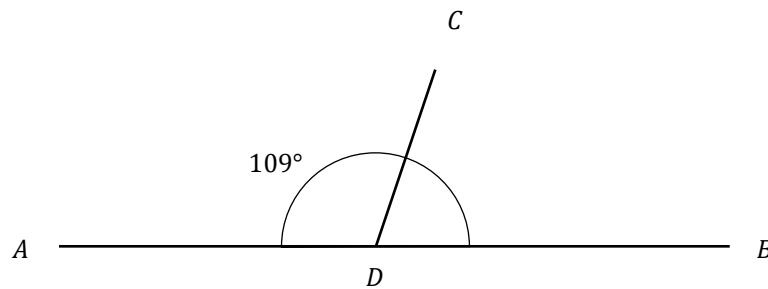
1(a) Line ADB is a straight line.

(Level 3)

Find the angle CDB shown below.

Give a reason for your answer.

[2 marks]

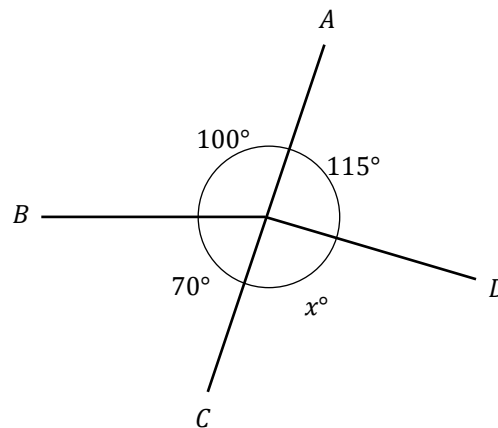


Not drawn accurately

Answer _____

1(b) $ABCD$ are points around a circle.

Not drawn accurately



Find the value of x

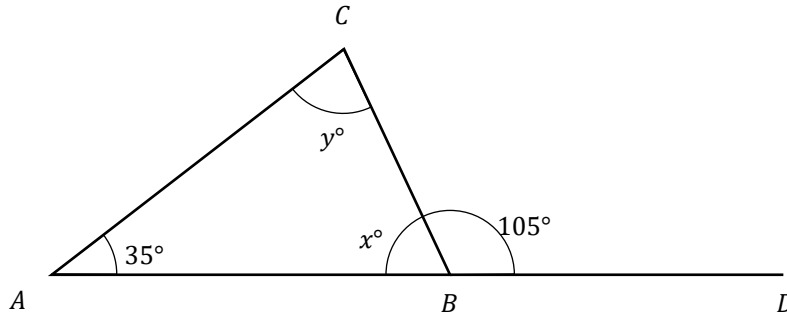
Give a reason for your answer.

[2 marks]

Answer _____

- 2** ACB forms a triangle shown below
 ABD is a straight line.

(Level 3)

Not drawn
accurately

- 2(a)** Find angle x
 Give a reason for your answer.

[2 marks]

Answer _____

- 2(b)** Find angle y
 Give a reason for your answer.

[2 marks]

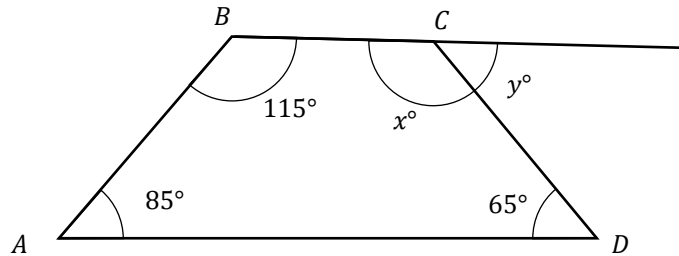
Answer _____

Turn over for next question

Turn over ►

3 *ACBD* forms a quadrilateral shown below.

(Level 3)



Not drawn accurately

3(a) Find x

Give a reason for your answer.

[2 marks]

Answer _____

3(b) Find y

Give a reason for your answer.

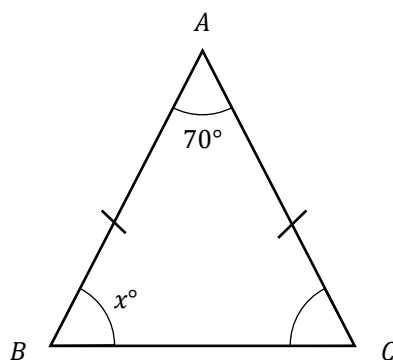
[2 marks]

Answer _____

Turn over for next question

4(a) ABC forms an isosceles triangle shown below.

(Level 3)



Not drawn accurately

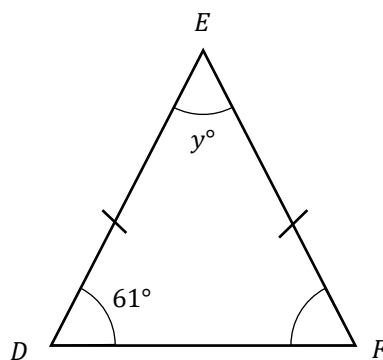
Find x

Give a reason for your answer.

[2 marks]

Answer _____ °

4(b) EDF forms an isosceles triangle shown below.



Find the value of y

Give a reason for your answer.

[2 marks]

Answer _____ °

Turn over for next question

5 A compound shape is shown in the diagram below.

(Level 4)

$ADEC$ forms a quadrilateral

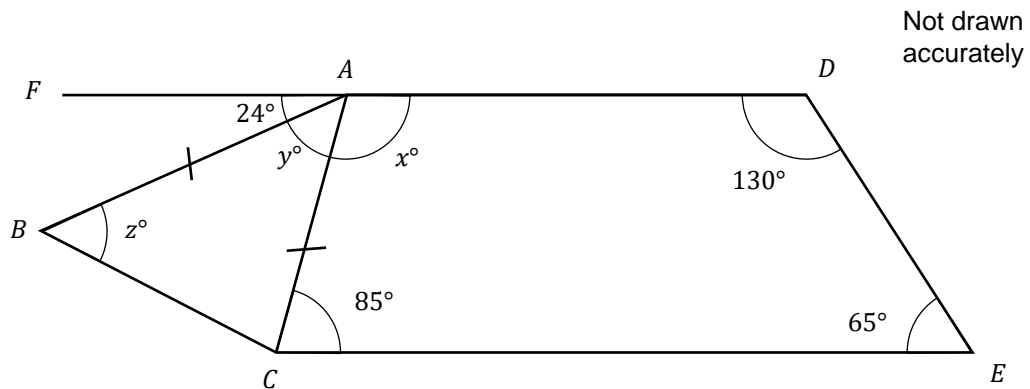
ABC is an isosceles triangle

FAD is a straight line

$\angle CAD = x^\circ$

$\angle BAC = y^\circ$

$\angle ABC = z^\circ$



5(a) Find x

[1 mark]

Answer _____^o

5(b) Find y

[1 mark]

Answer _____^o

5(c) Find z

[1 mark]

Answer _____^o

End of questions