GCSE MATHEMATICS
AQA | Edexcel | OCR I WJEC

## Geometry Problems

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 $A D B$ is a straight line.
Find the angle $C D B$ shown below.
Give a reason for your answer.


Answer $\qquad$

1(b) $\quad A B C D$ are points around a circle.


Find the value of $x$
Give a reason for your answer.
[2 marks]
$\qquad$
$\qquad$
Answer $\qquad$
$2 A C B$ forms a triangle shown below $A B D$ is a straight line.


2(a) Find angle $x$
Give a reason for your answer.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

2(b) Find angle $y$
Give a reason for your answer.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

Turn over for next question
$3 \quad A C B D$ forms a quadriateral shown below.


Not drawn accurately

3(a) $\quad$ Find $x$
Give a reason for your answer.
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

3(b) Find $y$
Give a reason for your answer.
[2 marks]
$\qquad$
$\qquad$
$\qquad$
Answer $\qquad$

Turn over for next question

4(a) $A B C$ forms an isosceles triangle shown below.


Not drawn accurately

Find $x$
Give a reason for your answer.

Answer $\qquad$。

4(b) $\quad E D F$ forms an isosceles triangle shown below.


Find the value of $y$
Give a reason for your answer.
$\qquad$
$\qquad$
Answer $\qquad$。

Turn over for next question
$5 \quad$ A compound shape is shown in the diagram below．
$A D E C$ forms a quadrilateral
$A B C$ is an isosceles triangle
$F A D$ is a straight line
$\angle C A D=x^{\circ}$
$\angle B A C=y^{\circ}$
$\angle A B C=z^{\circ}$


5（a）$\quad$ Find $x$
$\qquad$
Answer $\qquad$。

5（b）$\quad$ Find $y$
$\qquad$
Answer $\qquad$。

5（c）Find $z$
$\qquad$
$\qquad$
Answer $\qquad$。

