MME

GCSE MATHEMATICS
AQA | Edexcel | OCR | WJEC

Geometry Problems Parallel Lines

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   In the diagram below, AB is parallel to line CD.

Not drawn accurately
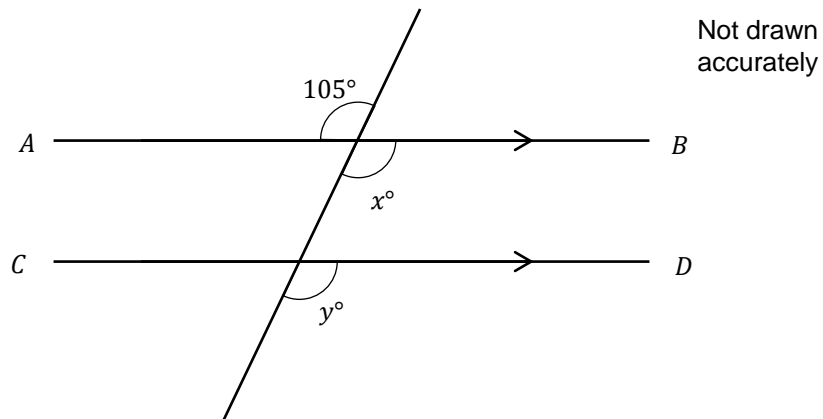
1(a)   Find the value of x

Give a reason for your answer.

[2 marks]

Answer _____

1(b)   Find the value of y

Give a reason for your answer.

[2 marks]

Answer _____

Turn over for next question

Turn over ▶

4

2 In the diagram below, AB is parallel to line CD.

Not drawn
accurately

A ⟶ B

100°

$y°$ $x°$

C ⟶ D
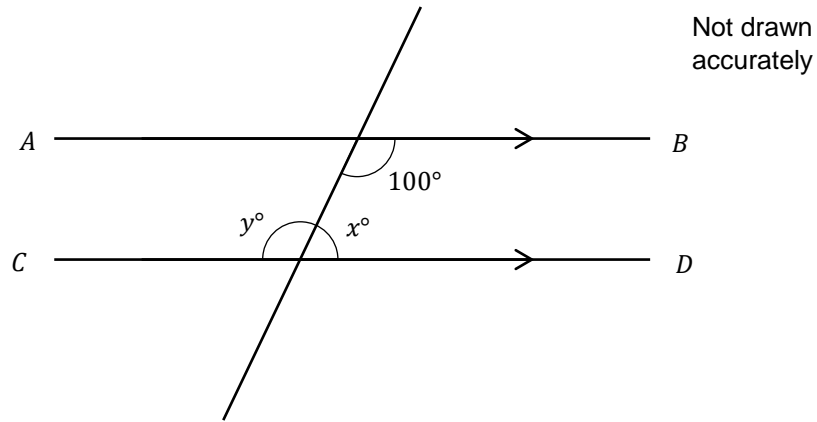
2(a) Find the value of x

Give a reason for your answer.

[2 marks]

_____

_____

Answer _____

2(b) Find the value of y

Give a reason for your answer.

[2 marks]

_____

_____

Answer _____

Turn over for next question

4

Turn over ▶

3 In the diagram below, AB is parallel to line CD.
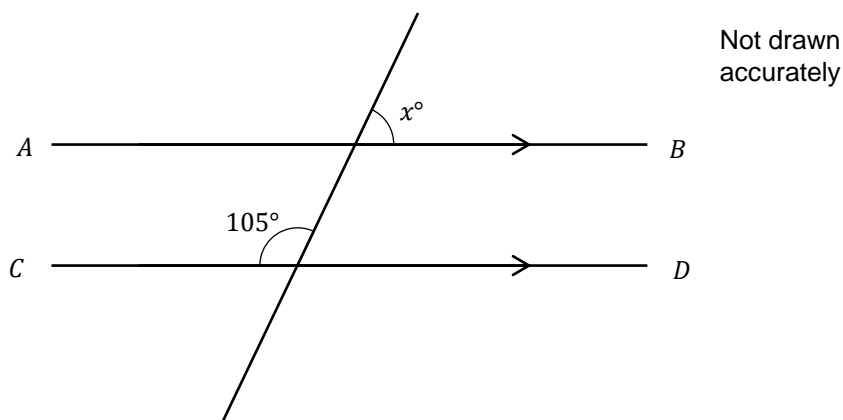
Not drawn accurately

A ——————————→ B

$x°$

$105°$

C ——————————→ D

Find the value of x

Give a reason for your answer.

[3 marks]

Answer _____

3

Turn over ▶

4   In the diagram below, AB is parallel to line CD and EF.

Not drawn
accurately
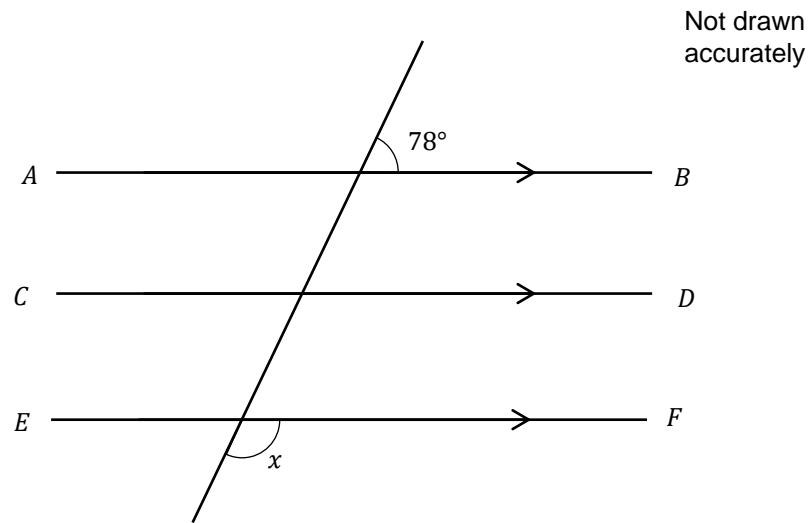
Find the value of x

Give a reason for each step of your answer.

[3 marks]

Answer _____

Turn over for next question

Turn over ▶

5 ABC is an isosceles triangle shown below

Lines DE and BC are parallel

$AB = AC$

A

Not drawn
accurately

40°

D   E

$x°$

B   C

Find the value of x

Give a reason for each step of your answer.

[3 marks]

_____
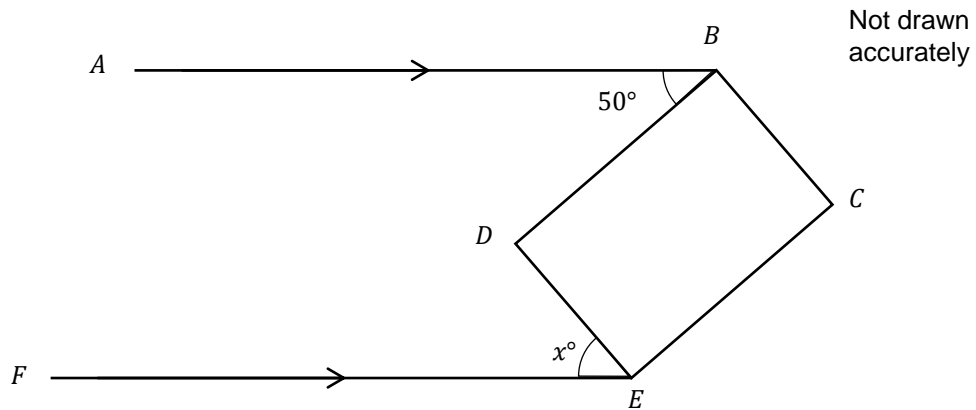
_____

_____

_____

_____

_____

Answer   _____

3

Turn over ►

6 The diagram below shows two parallel lines and a rectangle

$AB = FE$

$BCED$ is a rectangle

$\angle ABD = 50°$

$\angle DEF = x°$

A ————————————————→ B Not drawn accurately

50°

D

C

x°

F ————————————————→ E

Find the value of x

Give a reason for each step of your answer.

[2 marks]

Answer _____

End of Questions

END