

Name:.....

Total Marks:.....

GCSE (9-1) Grade 4

Angles in Parallel Lines



Instructions

Use **black** ink or ball-point pen.

Fill in the boxes at the top of this page with your name.

Answer **all** questions.

Answer the questions in the spaces provided

– there may be more space than you need.

Show all your working out

Information

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

Attempt every question

Check your answers if you have time at the end

1.

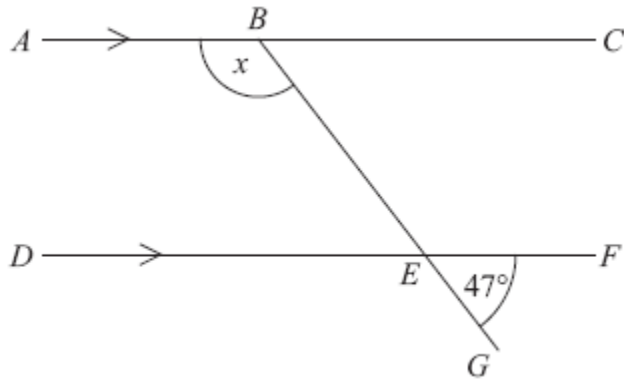


Diagram **NOT**
accurately drawn

ABC and *DEF* are parallel lines.

BEG is a straight line.

Angle *GEF* = 47° .

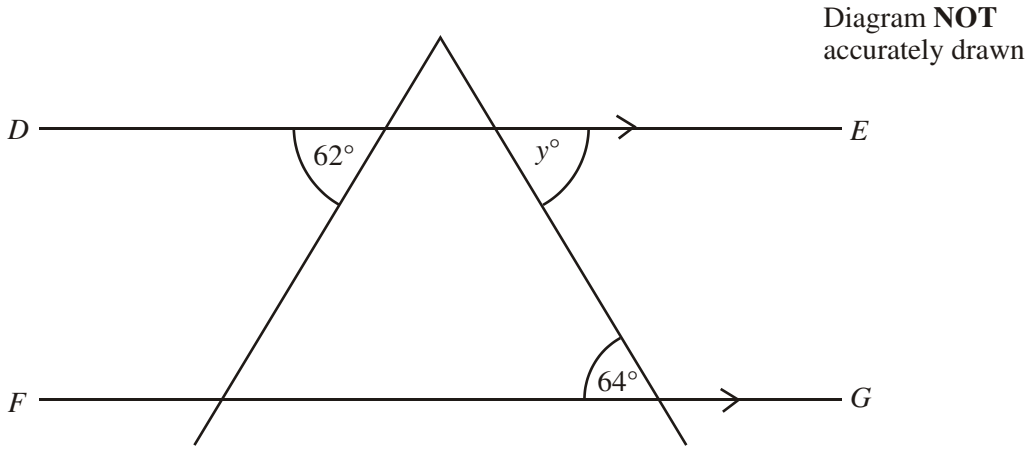
Work out the size of the angle marked *x*.

Give reasons for your answer.

.....^o

(3 marks)

2.



DE is parallel to *FG*.

- (i) Find the size of the angle marked y° .

.....^o

(1)

- (ii) Give a reason for your answer.

.....
.....

(2)

(3 marks)

3.

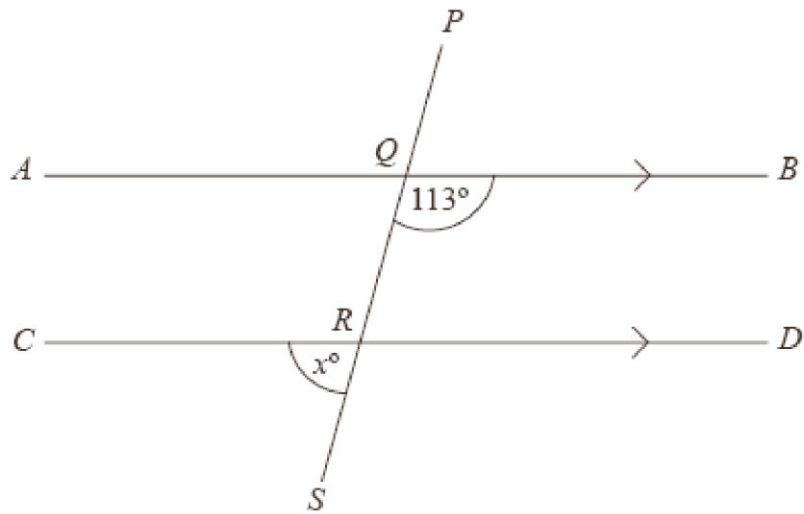


Diagram **NOT** accurately drawn

AQB , CRD and $PQRS$ are straight lines.

AB is parallel to CD .

Angle $BQR = 113^\circ$.

(a) Work out the value of x .

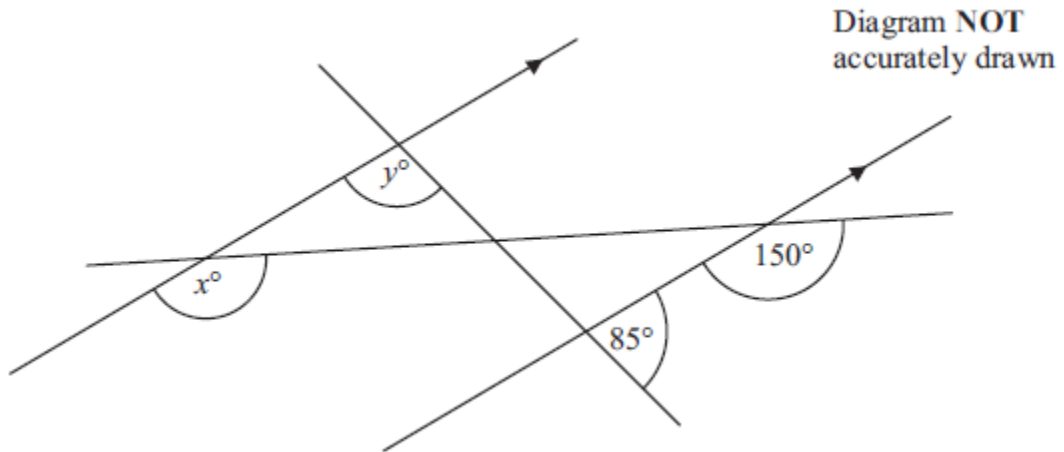
$x = \dots\dots\dots$

(b) Give reasons for your answer.

.....
.....
.....

(4 marks)

4.



(a) i) Find the value of x .

.....
(1)

ii) Give reasons for your answer.

.....
(1)

(b) i) Find the value of y .

.....
(2)

ii) Give reasons for your answer.

.....
(2)

(6 marks)

*5.

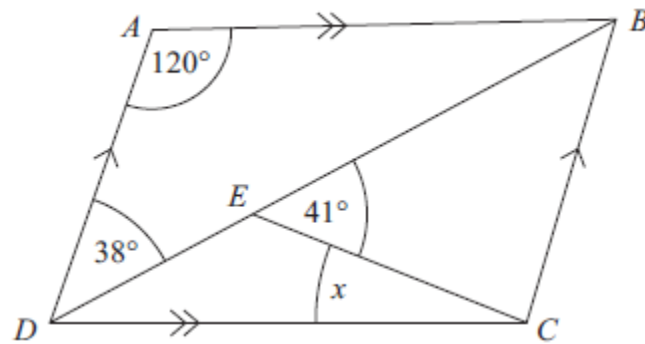


Diagram **NOT**
accurately drawn

$ABCD$ is a parallelogram.

Angle $ADB = 38^\circ$.

Angle $BEC = 41^\circ$.

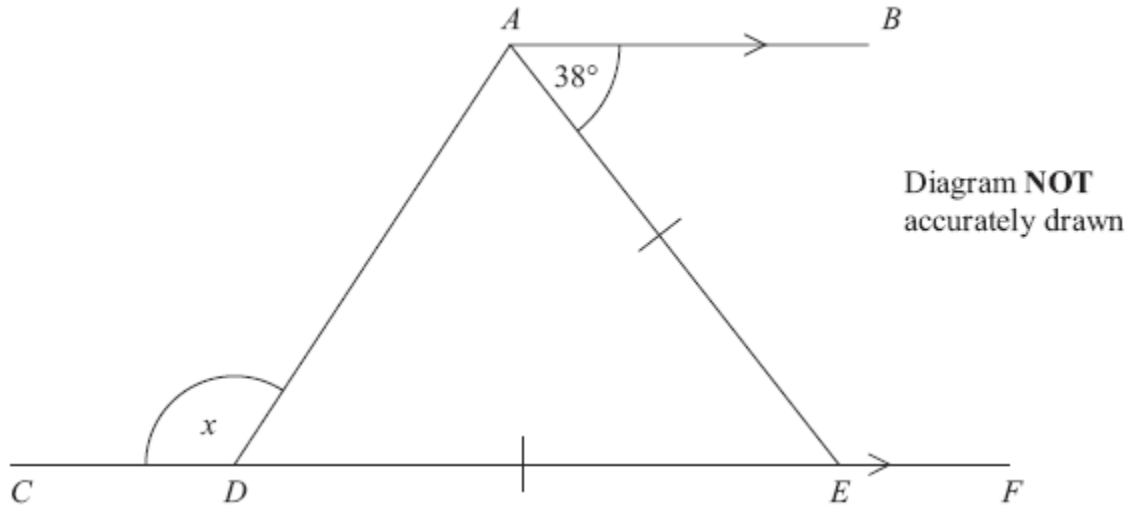
Angle $DAB = 120^\circ$.

Calculate the size of angle x .

You must give reasons for your answer.

(4 marks)

*6.



$CDEF$ is a straight line.
 AB is parallel to CF .
 $DE = AE$.

Work out the size of the angle marked x .
You must give reasons for your answer.

(4 marks)

*7.

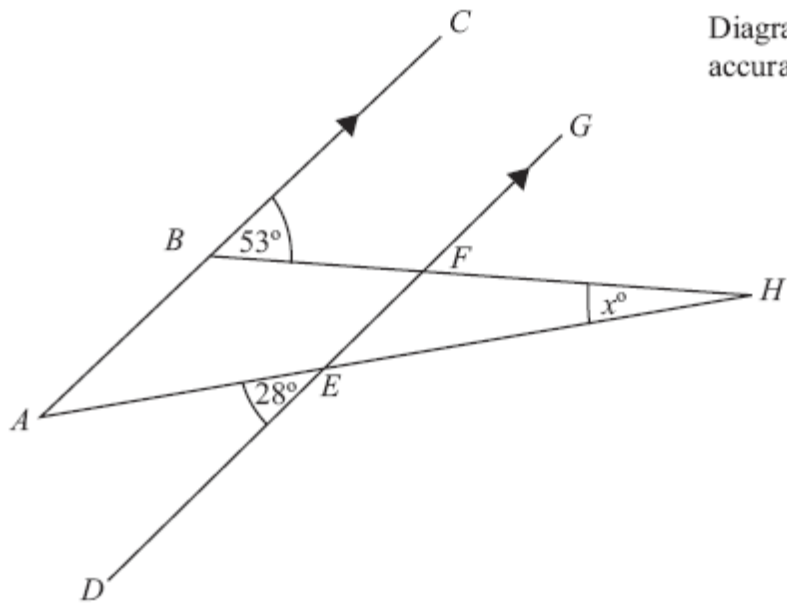


Diagram **NOT**
accurately drawn

ABC and *DEFG* are parallel.
AEH and *BFH* are straight lines.
Work out the size of the angle marked x° .

.....^o
(3 marks)