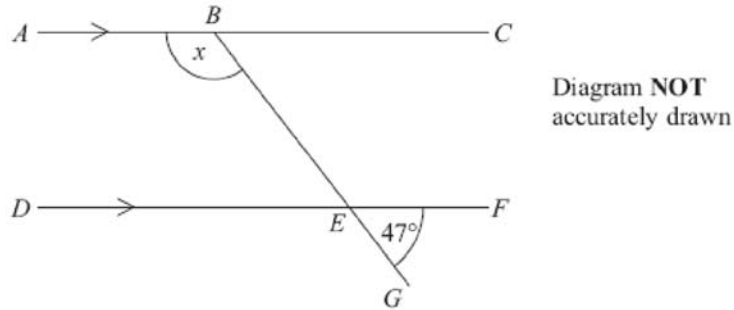


1.



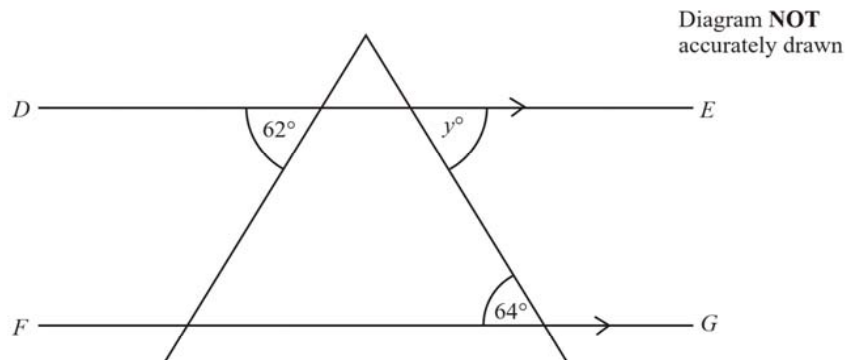
ABC and *DEF* are parallel lines.
BEG is a straight line.
 Angle $GEF = 47^\circ$.

Work out the size of the angle marked x .

Give reasons for your answer.

(3 marks)

2.



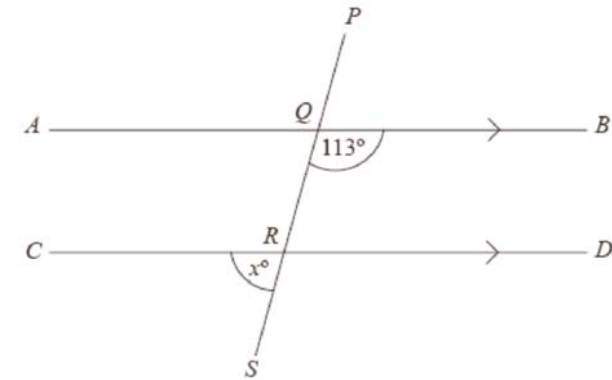
DE is parallel to *FG*.

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

(ii) Give a reason for your answer.

(3 marks)

3.



AQB, *CRD* and *PQRS* are straight lines.

AB is parallel to *CD*.

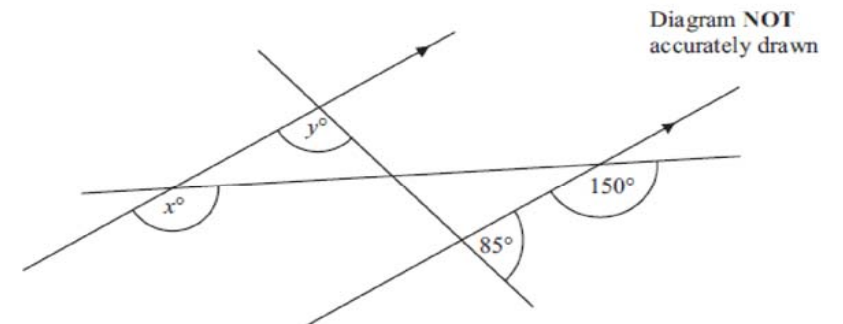
Angle $BQR = 113^\circ$.

(a) Work out the value of x .

(b) Give reasons for your answer.

(4 marks)

4.



(a) i) Find the value of x . (1)

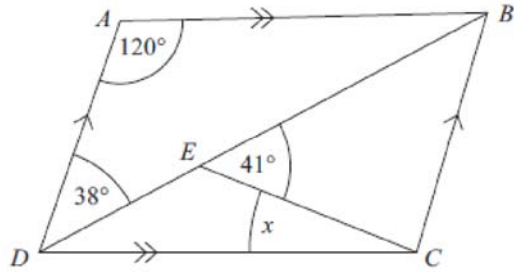
ii) Give reasons for your answer. (1)

(b) i) Find the value of y . (2)

ii) Give reasons for your answer. (2)

(6 marks)

*5.



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.

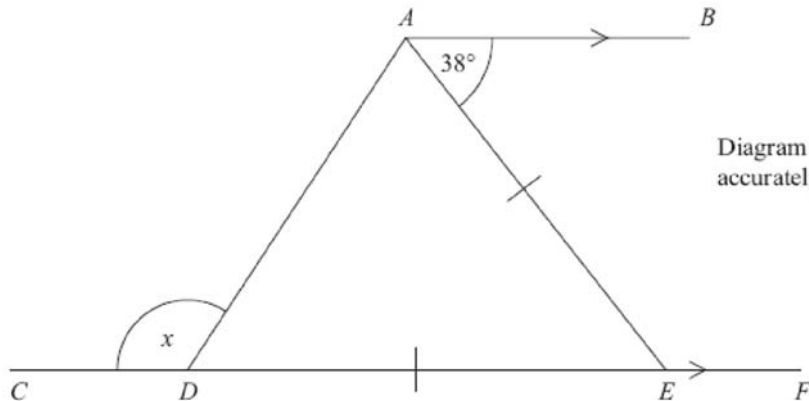


Diagram NOT accurately drawn

- 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.

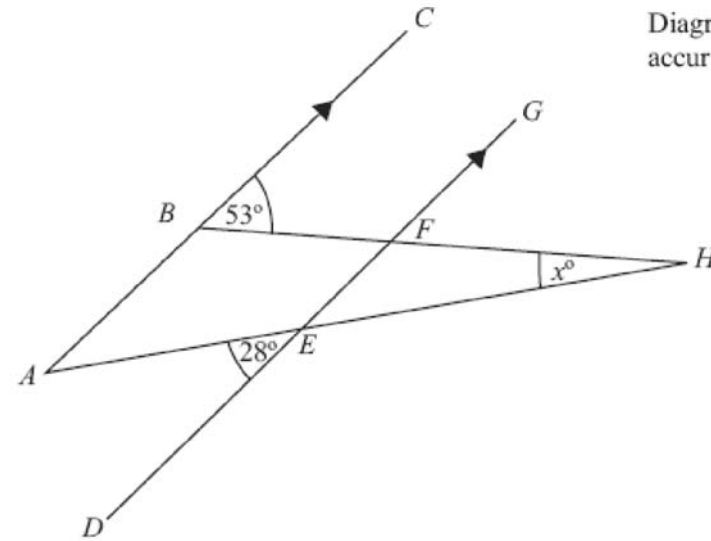


Diagram NOT accurately drawn

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

(3 marks)