1.

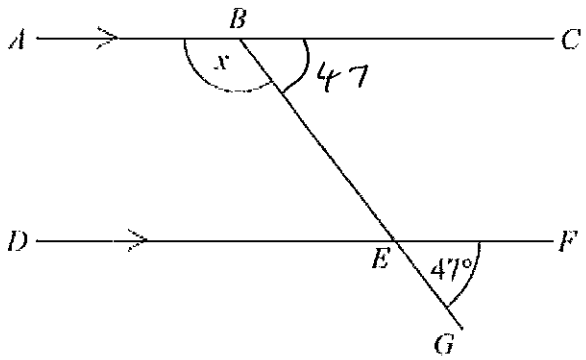


Diagram **NOT** accurately drawn

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.

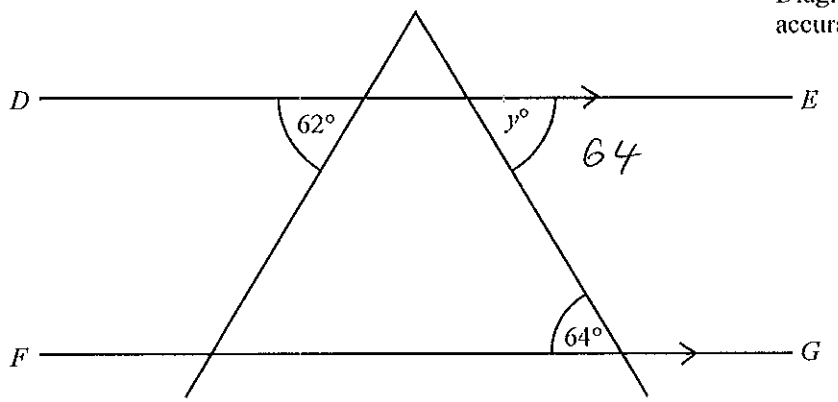
$C\hat{B}E = 47^\circ$ corresponding angles are equal

$x = 133^\circ$ Angles on a straight line add up to 180°

133 .....°

(3 marks)

2.



DE is parallel to *FG*.

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

64 °

(1)

(ii) **Give a reason for your answer.**

alternate angles are equal

(2)

(3 marks)

3.

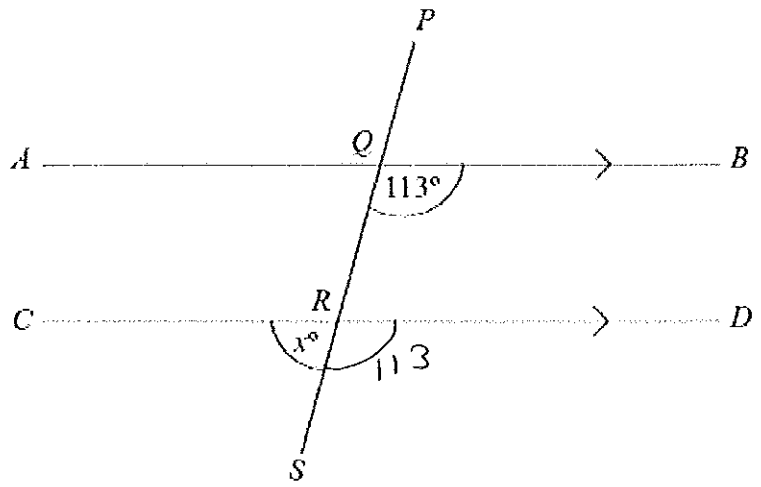


Diagram **NOT** accurately drawn

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

AB is parallel to *CD*.

Angle *BQR* = 113°.

(a) Work out the value of *x*.

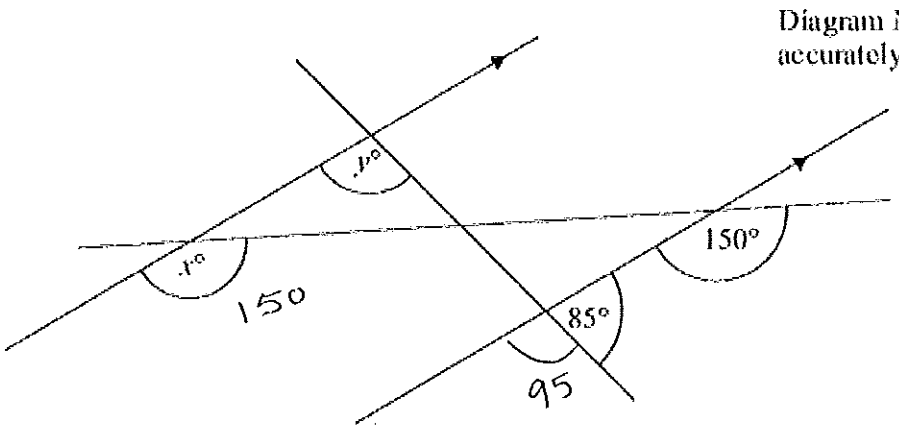
x = 67

(b) Give reasons for your answer.

Corresponding angles are equal
angles on a straight line add up to 180°

(4 marks)

4.



(a) i) Find the value of x.

150

(1)

ii) Give reasons for your answer.

Corresponding angles are equal

(1)

(b) i) Find the value of y.

95°

(2)

ii) Give reasons for your answer.

angles on a straight line add up to 180°
corresponding angles are equal

(2)

(6 marks)

*5.

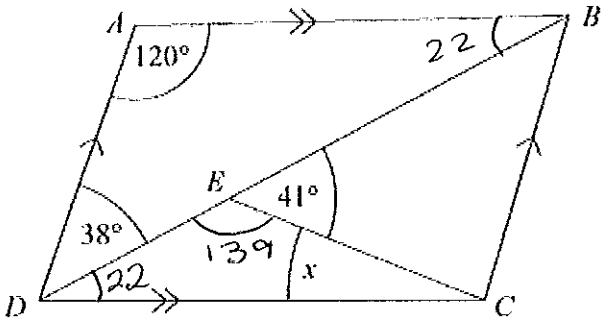


Diagram **NOT** accurately drawn

ABCD is a parallelogram.

Angle *ADB* = 38°.
Angle *BEC* = 41°.
Angle *DAB* = 120°.

Calculate the size of angle *x*.
You must give reasons for your answer.

$A\hat{B}D = 22°$ (Angles in a triangle add up to 180°)

$B\hat{D}C = 22°$ (Alternate angles are equal)

$C\hat{E}D = 139°$ (Angles on a straight line add up to 180°)

$x = 19°$ (Angles in a triangle add up to 180°)

(4 marks)

*6.

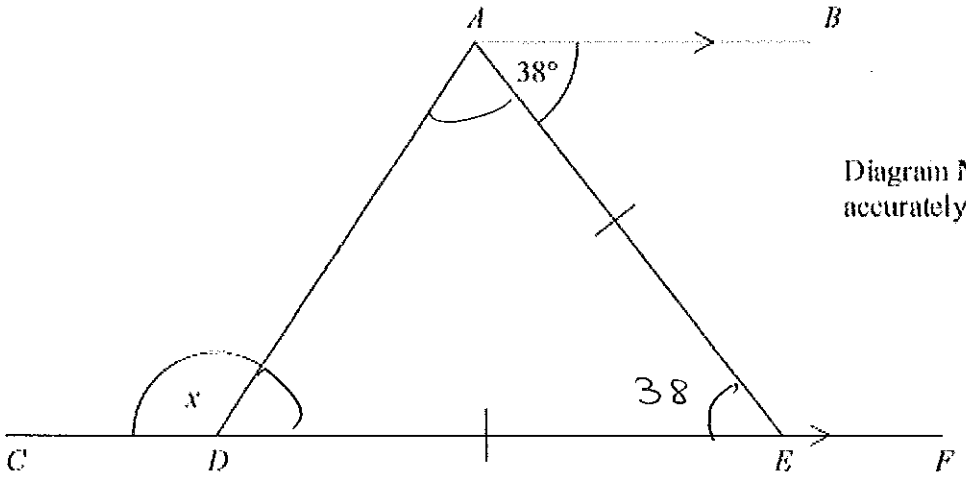


Diagram **NOT** accurately drawn

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.

$A\hat{E}D = 38°$ Alternate angles are equal

$A\hat{D}E$ and $D\hat{A}E = 71°$ (Angles at base of isosceles are equal)

$x = 109°$ (Angles on a straight line add up to 180°)

(4 marks)

*7.

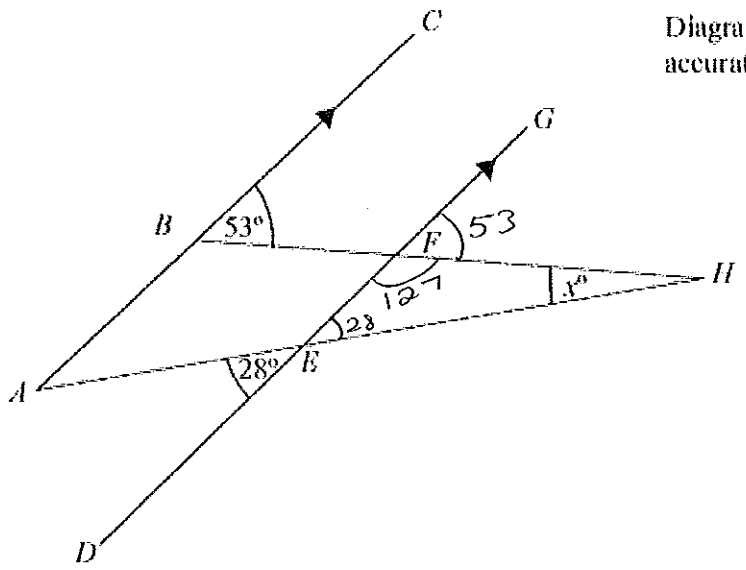


Diagram **NOT** accurately drawn

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

$\hat{GEH} = 28°$ opposite angles are equal

$\hat{GFH} = 53°$ alternate angles are equal

$\hat{EFH} = 127$ angles on a straight line add to 180°

$x = 25°$ angles in a triangle add to 180°

25 °

(3 marks)