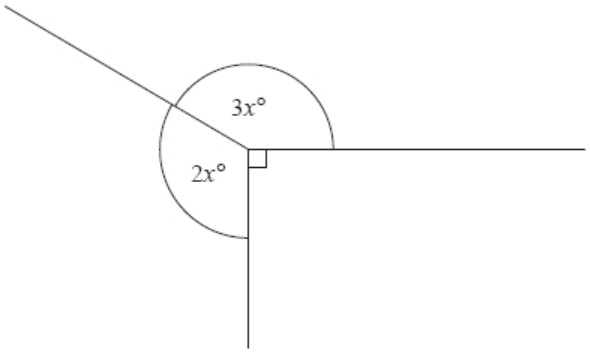
G034 Angles 1

Q1.



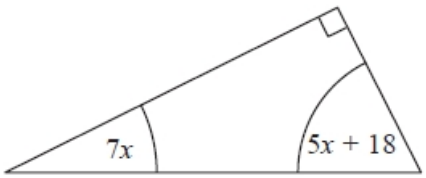
Find the value of *x*.

.....

(Total for question = 3 marks)

Q2.

The diagram shows a right-angled triangle.



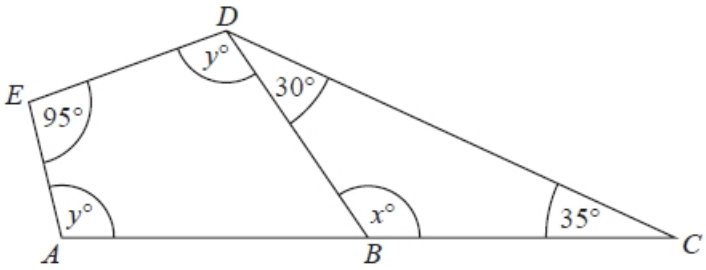
All the angles are in degrees.

Work out the size of the smallest angle of the triangle.

.....°

(Total for question is 3 marks)

Q3.



ABC is a straight line.
BCD is a triangle.
ABDE is a quadrilateral.

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

.....

(ii) Give a reason for your answer.

.....

.....

(2)

(b) Work out the value of *y*.

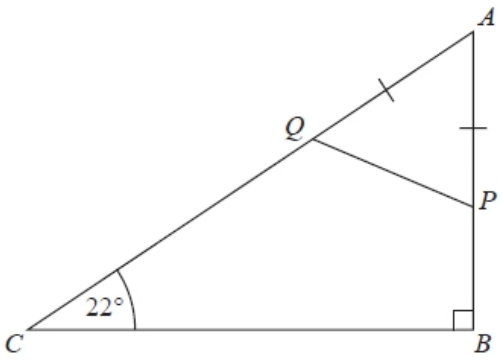
.....

(2)

(Total for question = 4 marks)

Q4.

ABC is a right-angled triangle.



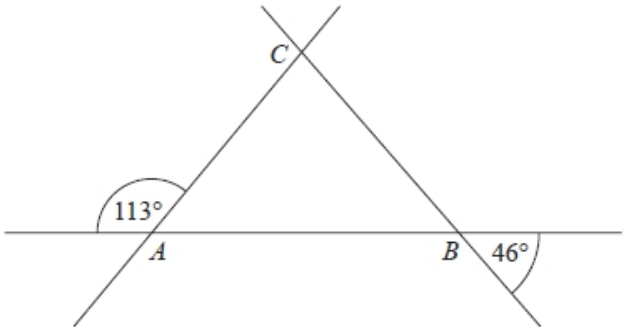
P is a point on *AB*.
Q is a point on *AC*.
AP = *AQ*.

Work out the size of angle *AQP*.
You must give a reason for each stage of your working.

(Total for question is 4 marks)

Q5.

Here is triangle *ABC* with each of its sides extended.



Show that triangle *ABC* is isosceles.
Give a reason for each stage of your working.

(Total for question = 4 marks)

Q6.

*

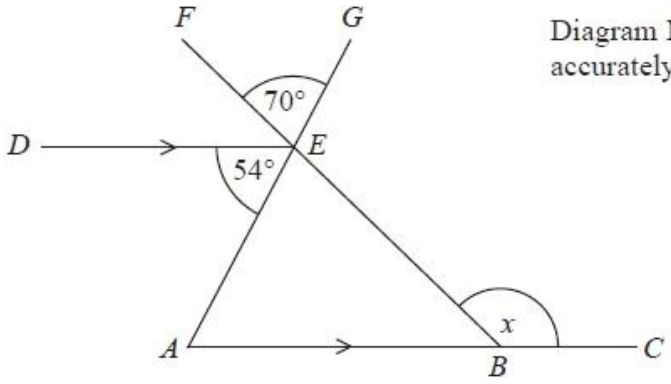


Diagram **NOT** accurately drawn

ABC and *DE* are parallel lines.
AEG and *BEF* are straight lines.

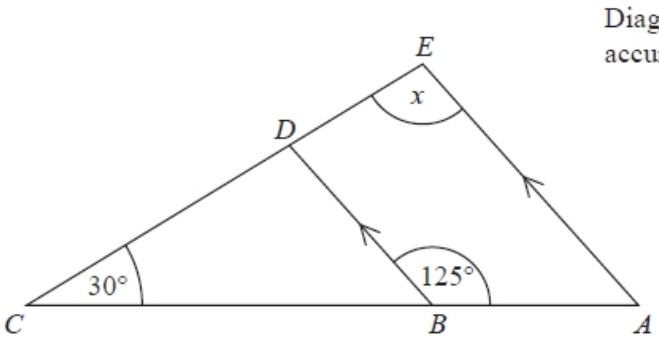
Angle *AED* = 54°
Angle *FEG* = 70°

Work out the size of the angle marked *x*.
Give a reason for each stage of your working.

(Total for question = 4 marks)

Q7.

*

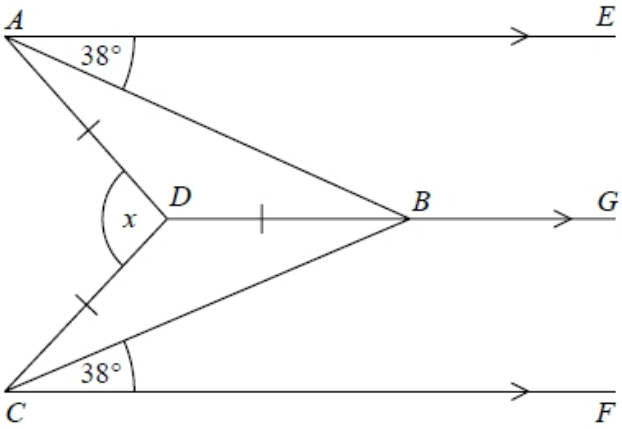


ABC and *EDC* are straight lines.
AE and *BD* are parallel.
Angle *ABD* = 125°
Angle *BCD* = 30°

Work out the size of the angle marked *x*.
Give reasons for your answer.

(Total for question = 4 marks)

Q8.



AE, *DBG* and *CF* are parallel.
DA = *DB* = *DC*.
Angle *EAB* = angle *BCF* = 38°
Work out the size of the angle marked *x*.
You must show your working.

.....°

(Total for question = 3 marks)

Q9.

*

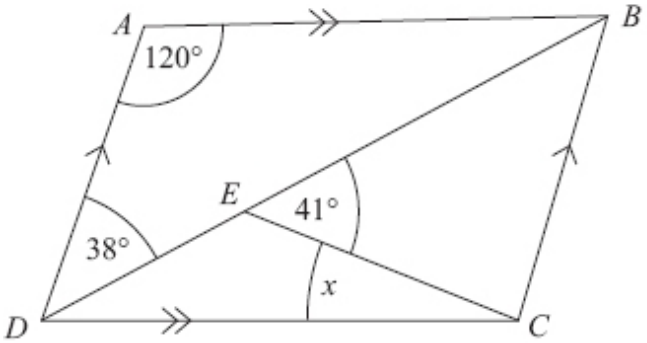


Diagram **NOT** accurately drawn

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.

(Total for Question is 4 marks)

Q10.

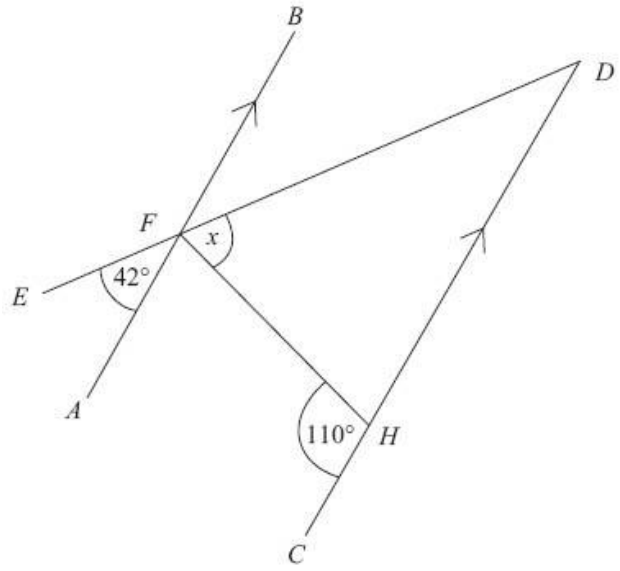


Diagram **NOT** accurately drawn

AFB and *CHD* are parallel lines.
EFD is a straight line.

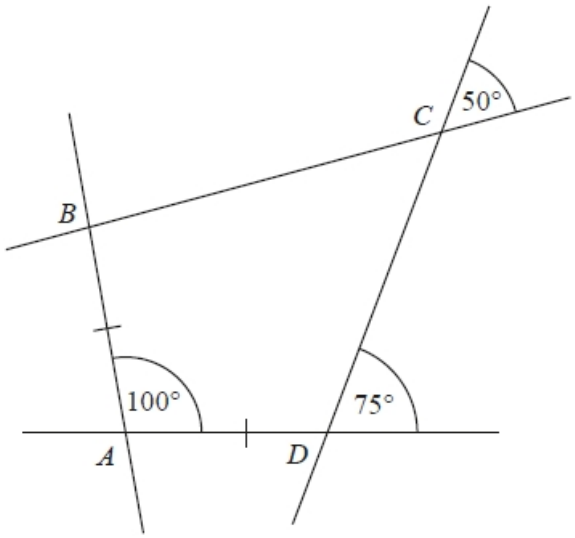
Work out the size of the angle marked *x*.

x = ... °

(Total for Question is 3 marks)

Q11.

The diagram shows quadrilateral *ABCD* with each of its sides extended.



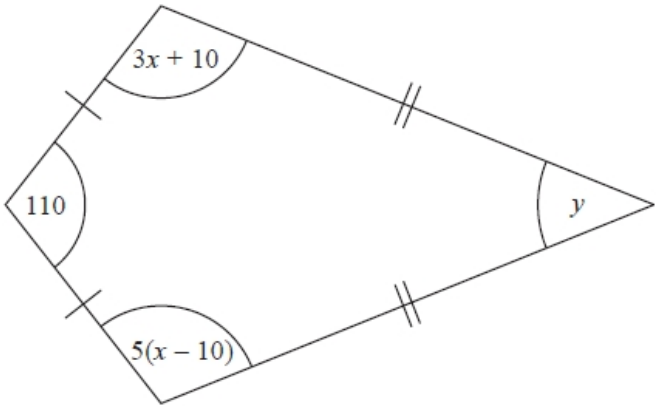
AB = *AD*

Show that *ABCD* is a kite.
Give a reason for each stage of your working.

(Total for question = 4 marks)

Q12.

Here is a kite.



All angles are measured in degrees.

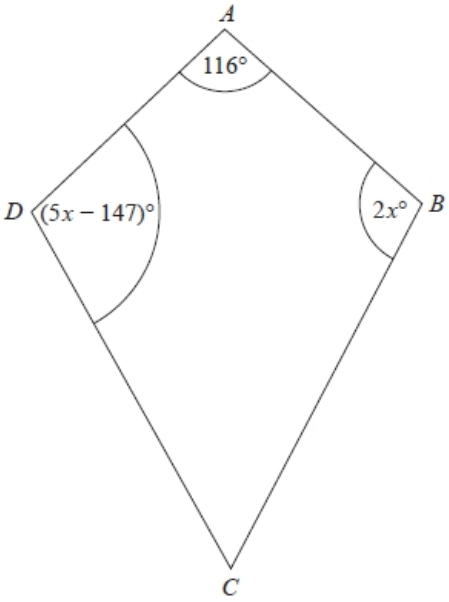
Work out the value of *y*.

.....

(Total for question = 4 marks)

Q13.

ABCD is a kite with *AD* = *AB*

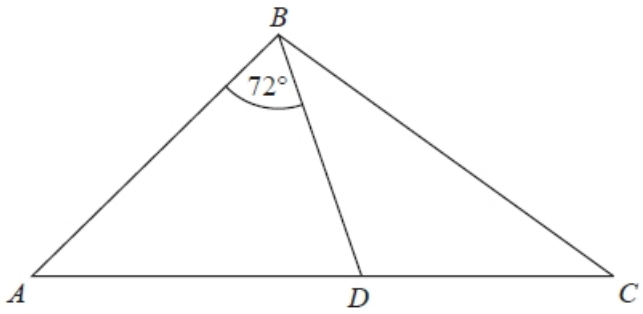


Find the size of the smallest angle of the kite.

..... °

(Total for question = 4 marks)

Q14.



ABC is an isosceles triangle with *BA* = *BC*.

D lies on *AC*.
ABD is an isosceles triangle with *AB* = *AD*.

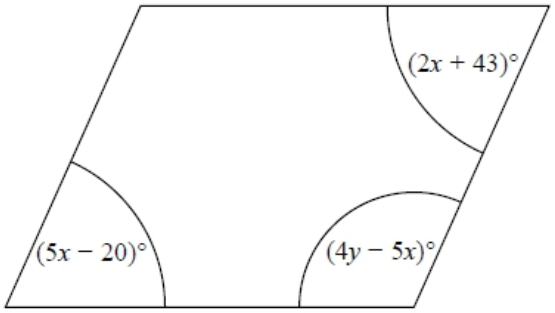
Angle *ABD* = 72º

Show that the triangle *BCD* is isosceles.
You must give a reason for each stage of your working.

(Total for question = 5 marks)

Q15.

Here is a parallelogram.



Work out the value of x and the value of y.

x = ...

y = ...

(Total for question = 5 marks)