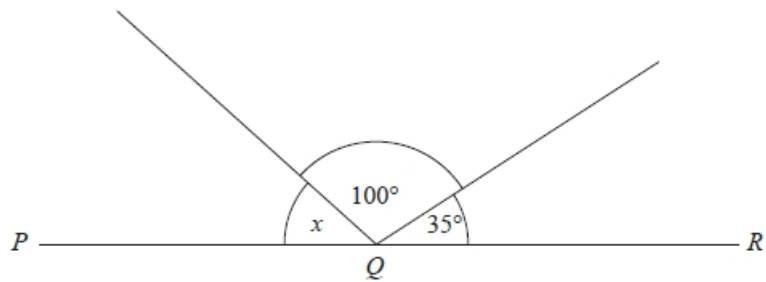


G044 Angles 1

Q1.

PQR is a straight line.



Work out the size of angle x .

.....^o

(Total for question = 2 marks)

Q2.

Keri draws a triangle.
She says,

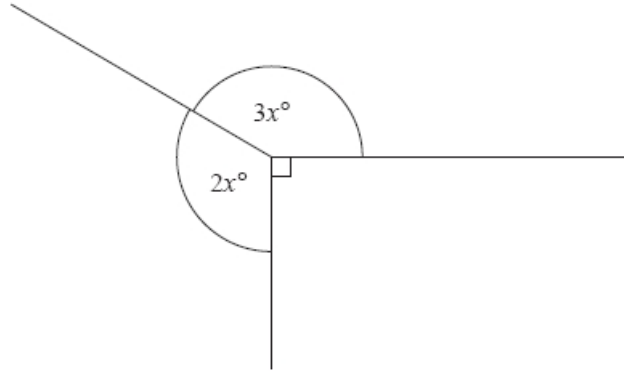
"Two of the angles of my triangle are obtuse."

Keri cannot be correct.
Explain why.

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

(Total for question = 2 marks)

Q3.

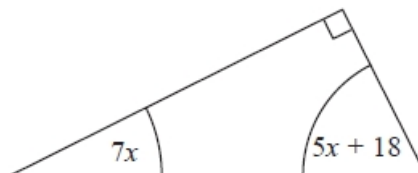


Find the value of x .

.....
(Total for question = 3 marks)

Q4.

The diagram shows a right-angled triangle.



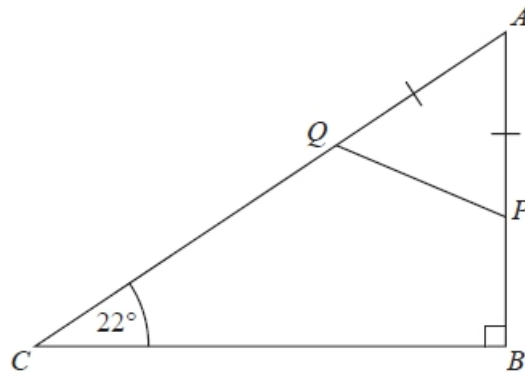
All the angles are in degrees.

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

.....°
(Total for question is 3 marks)

Q5.

ABC is a right-angled triangle.

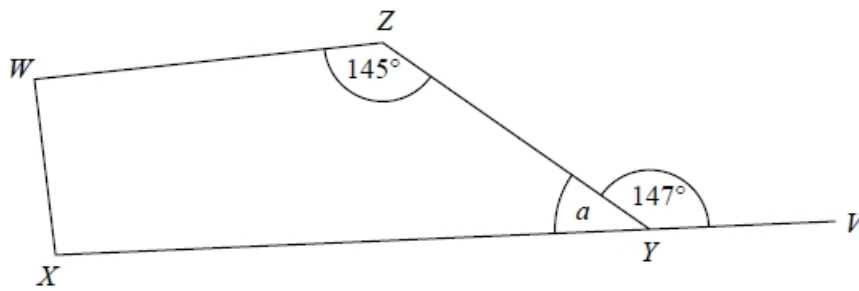


P is a point on AB .
 Q is a point on AC .
 $AP = AQ$.

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

(Total for question is 4 marks)

Q6.



$WXYZ$ is a quadrilateral.

XYV is a straight line.

(a) (i) Find the size of the angle marked a .

.....°

(ii) Give a reason for your answer.

.....

(2)

Angle $ZWX =$ angle WXY

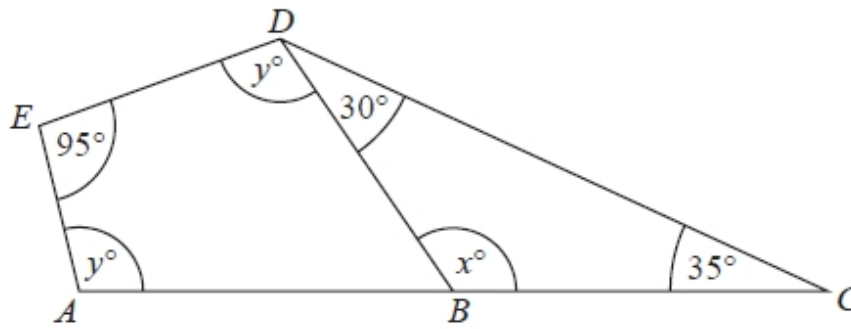
(b) Work out the size of angle ZWX .

.....°

(2)

(Total for question = 4 marks)

Q7.



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)

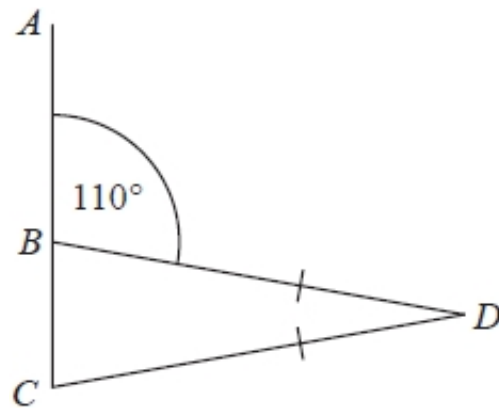
(b) Work out the value of y .

.....

(2)

(Total for question = 4 marks)

Q8.



ABC is a straight line.

$BD = CD$

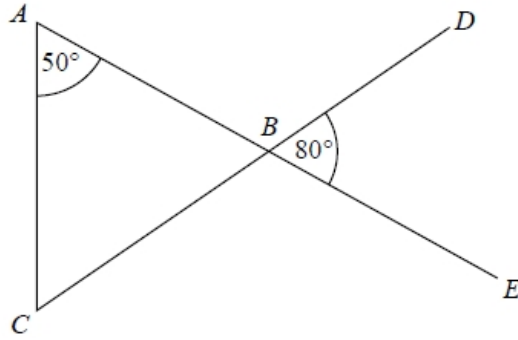
Angle $ABD = 110^\circ$

Show that angle $BDC = 40^\circ$.

Give a reason for each stage of your working.

(Total for question = 4 marks)

Q9.



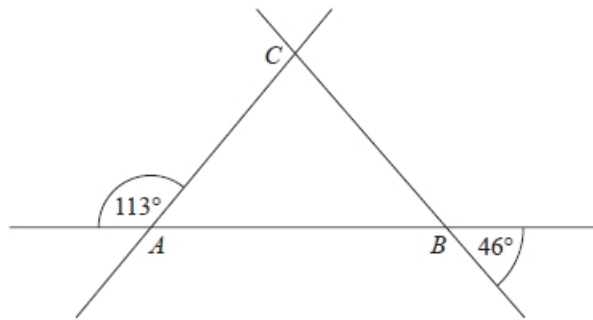
ABE and *CBD* are straight lines.

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

(Total for question = 4 marks)

Q10.

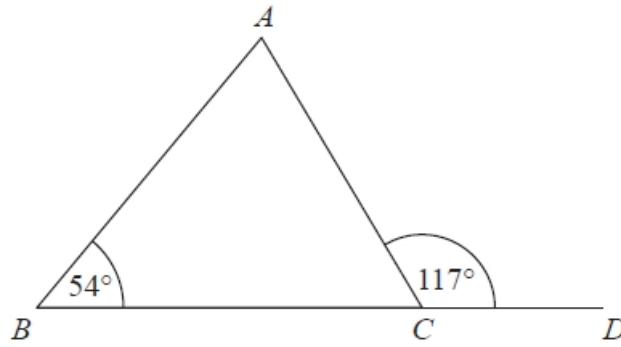
Here is triangle ABC with each of its sides extended.



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

(Total for question = 4 marks)

Q11.



BCD is a straight line.

ABC is a triangle.

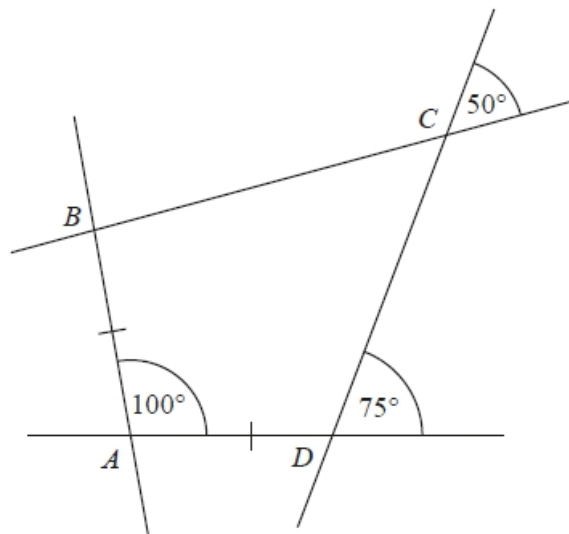
Show that triangle *ABC* is an isosceles triangle.

Give a reason for each stage of your working.

(Total for question = 4 marks)

Q12.

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



$AB = AD$

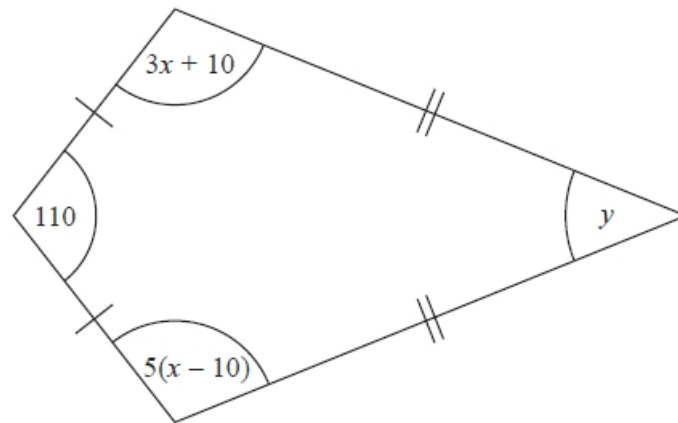
Show that $ABCD$ is a kite.

Give a reason for each stage of your working.

(Total for question = 4 marks)

Q13.

Here is a kite.



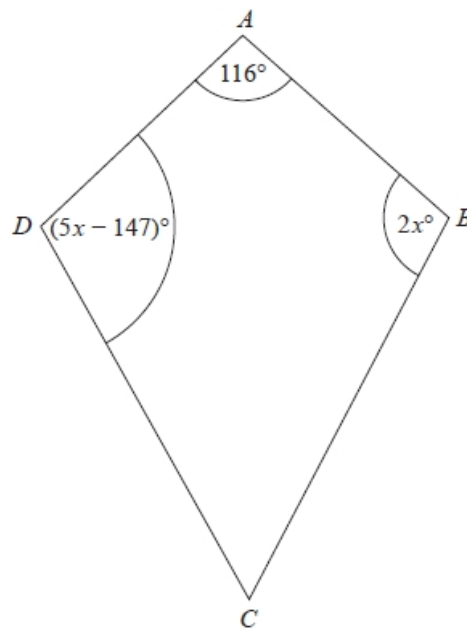
All angles are measured in degrees.

Work out the value of y .

.....
(Total for question = 4 marks)

Q14.

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

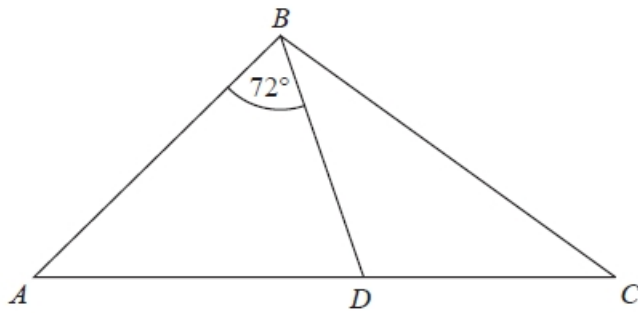


Find the size of the smallest angle of the kite.

.....^o

(Total for question = 4 marks)

Q15.



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

D lies on AC .

ABD is an isosceles triangle with $AB = AD$.

Angle $ABD = 72^\circ$

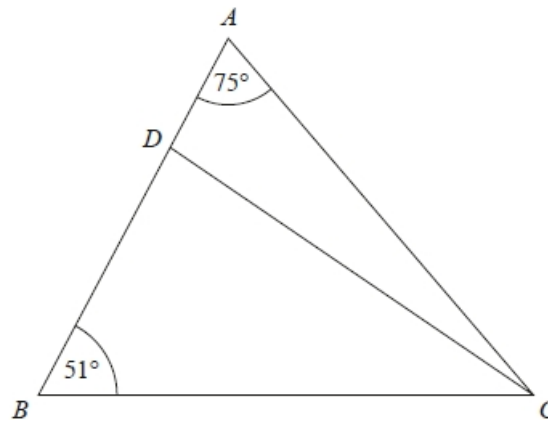
Show that the triangle BCD is isosceles.

You must give a reason for each stage of your working.

(Total for question = 5 marks)

Q16.

The diagram shows triangle ABC .



ADB is a straight line.

the size of angle DCB : the size of angle $ACD = 2 : 1$

Work out the size of angle BDC .

..... °

(Total for question = 4 marks)

Q17.

The size of the largest angle in a triangle is 4 times the size of the smallest angle.
The other angle is 27° less than the largest angle.

Work out, in degrees, the size of each angle in the triangle.
You must show your working.

..... $^\circ$, $^\circ$, $^\circ$

(Total for question = 5 marks)