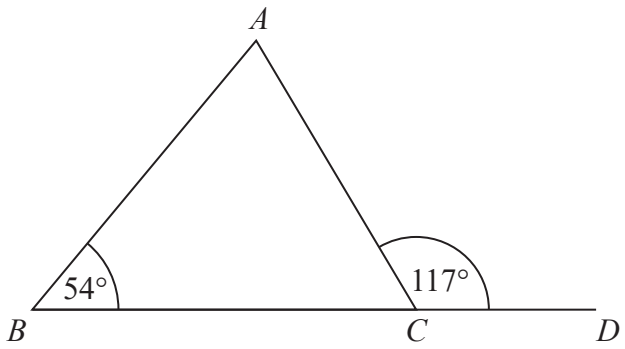
Autumn 2017 Paper 3 Q7

1



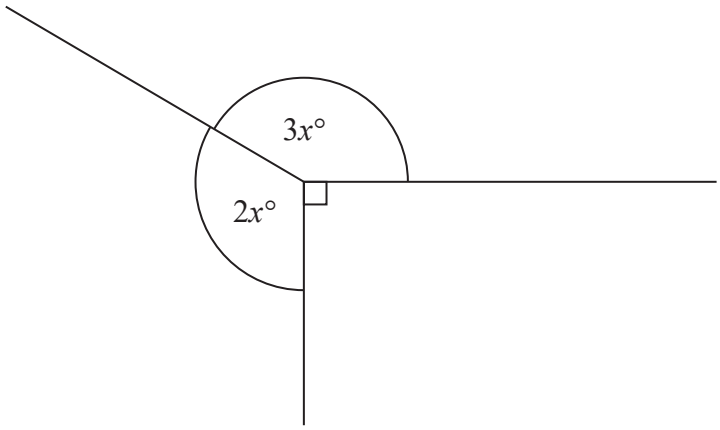
BCD is a straight line.
ABC is a triangle.

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

(Total for Question 1 is 4 marks)

Summer 2017 Paper 2 Q9

2



Find the value of x.

.....

(Total for Question 2 is 3 marks)

Summer 2017 Paper 3 Q13

3 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.

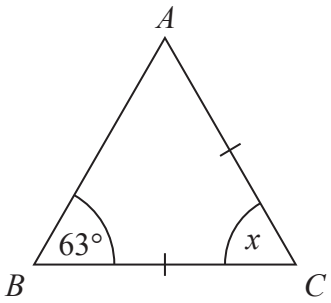
Work out, in degrees, the size of each angle in the triangle.
You must show your working.

..... °, ... °, ... °

(Total for Question 3 is 5 marks)

Summer 2018 Paper 2 Q15

4 Mary needs to work out the size of angle x in this diagram.



She writes

$x = 63°$ because base angles of an isosceles triangle are equal.

Mary is wrong.

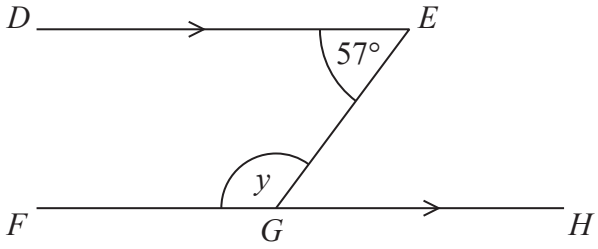
(a) Explain why.

.....

.....

(1)

William needs to work out the size of angle y in this diagram.



William writes

Working	**Reason**
angle $EGH = 57°$	because corresponding angles are equal
$y = 180° - 57°$ $y = 123°$	because angles on a straight line add up to 180°

One of William's reasons is wrong.

(b) Write down the correct reason.

.....

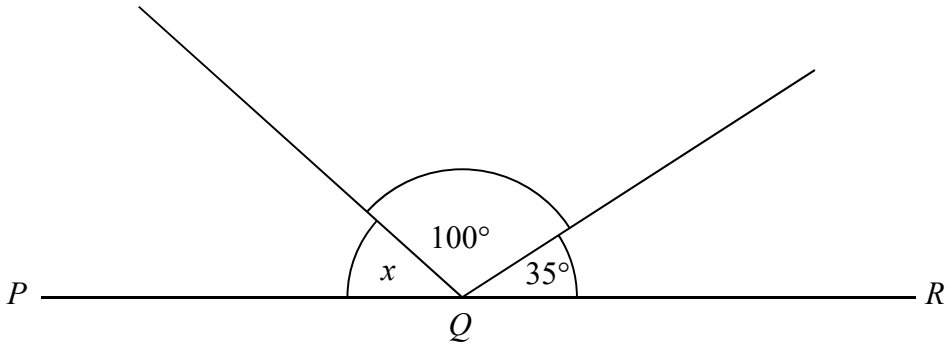
.....

(1)

(Total for Question 4 is 2 marks)

Autumn 2019 Paper 1 Q9

5 *PQR* is a straight line.



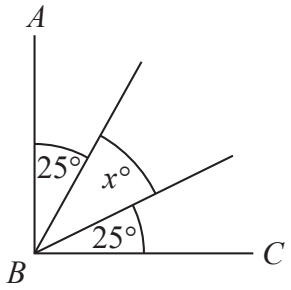
Work out the size of angle *x*.

..... °

(Total for Question 5 is 2 marks)

Summer 2019 Paper 1 Q12

6 *AB* and *BC* are perpendicular lines.

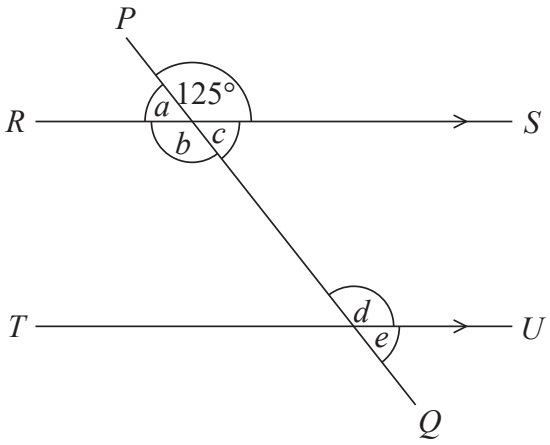


(a) Find the value of x.

$x =$ .....

(2)

RS and *TU* are parallel lines.
PQ is a straight line.



An angle of size 125° is shown on the diagram.

(b) (i) Write down the letter of one other angle of size 125°
Give a reason for your answer.

.....

.....

(2)

(ii) Explain why $a + b + c = 235°$

.....

.....

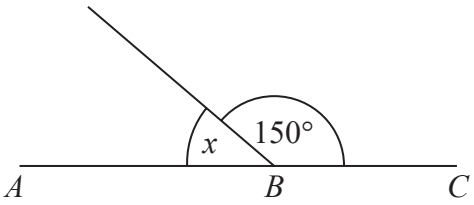
.....

(1)

(Total for Question 6 is 5 marks)

Summer 2020 Paper 2 Q8

7



ABC is a straight line.

(a) (i) Work out the size of the angle marked *x*.

.....°

(1)

(ii) Give a reason for your answer.

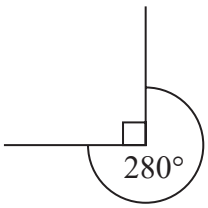
.....

.....

.....

(1)

The diagram below is wrong.



(b) Explain why.

.....

.....

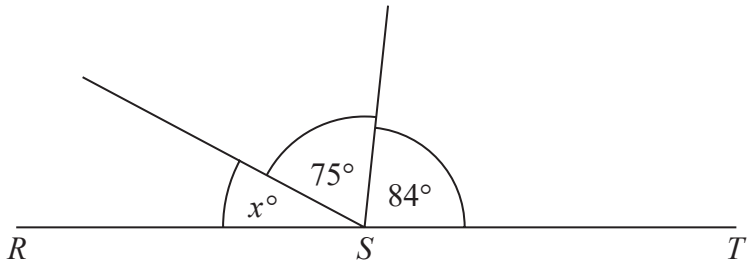
.....

(1)

(Total for Question 7 is 3 marks)

Autumn 2021 Paper 2 Q13

8



RST is a straight line.

(i) Work out the value of x.

.....

(2)

(ii) Give a reason for your answer.

.....

.....

.....

(1)

(Total for Question 8 is 3 marks)

Autumn 2021 Paper 3 Q15

9 Jenna measures all the angles around a point.

Her results are 23°, 145°, 23° and 69°

Explain why these results cannot be true.

.....

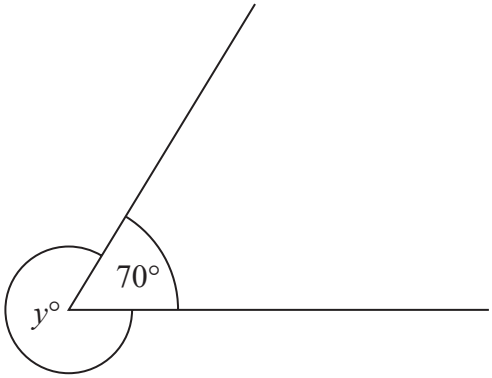
.....

.....

(Total for Question 9 is 1 mark)

Autumn 2022 Paper 1 Q9

10



(a) Find the value of y.

$y =$ .....

(1)

(b) Give a reason for your answer.

.....

.....

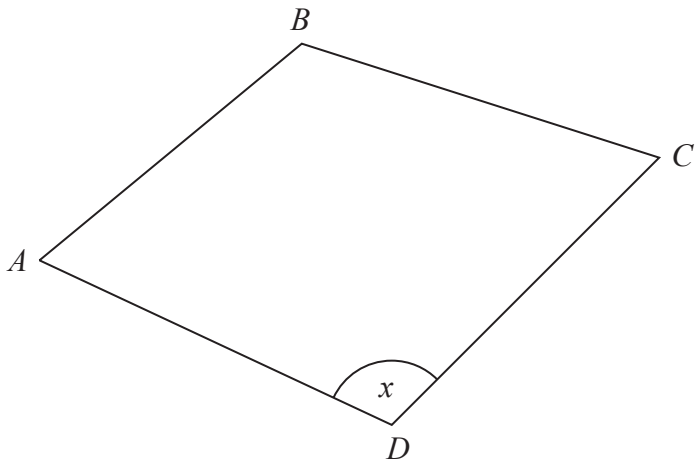
.....

(1)

(Total for Question 10 is 2 marks)

Autumn 2022 Paper 2 Q6

11 Here is a quadrilateral *ABCD*.



(a) Measure the length of the side *AB*.
Give your answer in centimetres.

..... centimetres
(1)

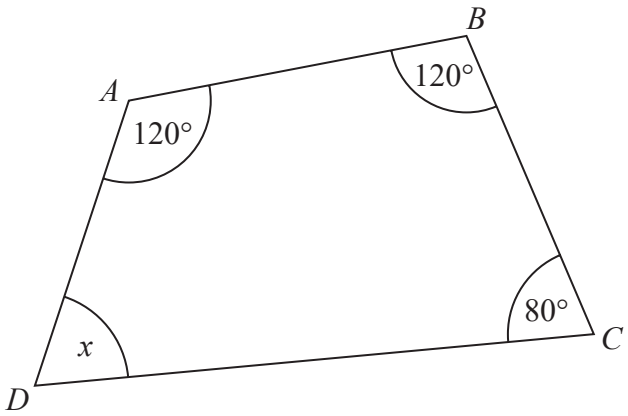
(b) Measure the size of the angle marked *x*.

.....°
(1)

(Total for Question 11 is 2 marks)

Autumn 2022 Paper 3 Q13

12 *ABCD* is a quadrilateral.



(a) (i) Work out the size of angle x.

.....°

(1)

(ii) Give a reason for your answer.

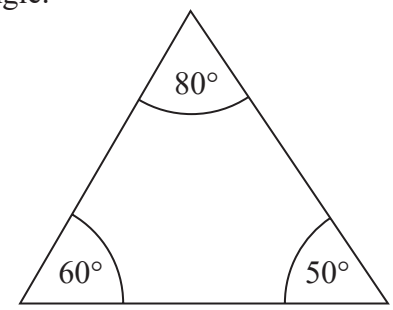
.....

.....

.....

(1)

The diagram below shows a triangle.



The diagram is wrong.

(b) Explain why.

.....

.....

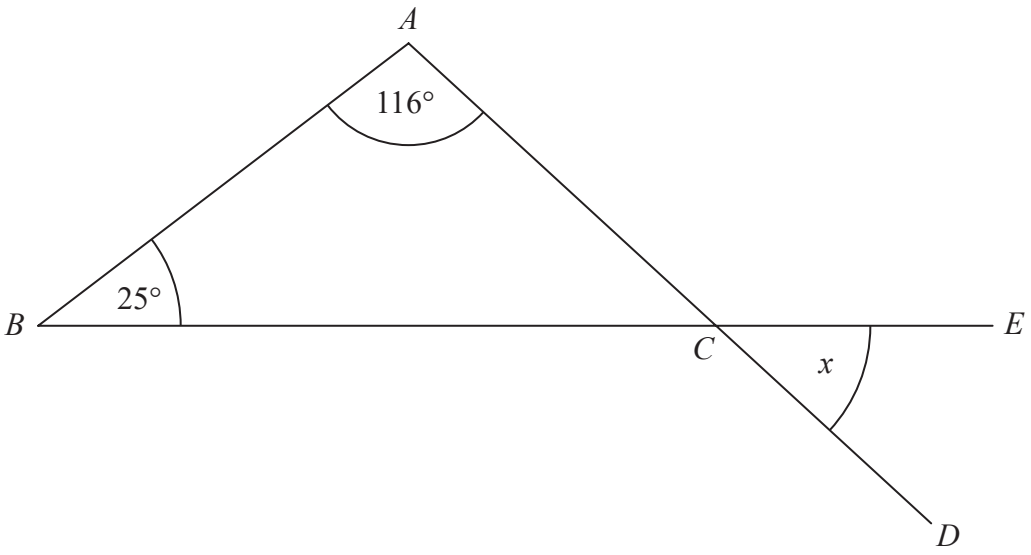
.....

(1)

(Total for Question 12 is 3 marks)

Summer 2022 Paper 2 Q11

13 The diagram shows a triangle *ABC*.



ACD and *BCE* are straight lines.

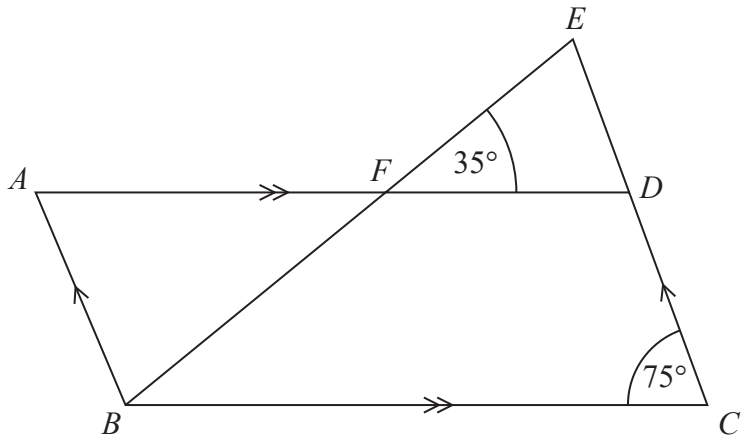
Work out the size of the angle marked *x*.
Give a reason for each stage of your working.

.....°

(Total for Question 13 is 3 marks)

Autumn 2017 Paper 1 Q25

14



ABCD is a parallelogram.
EDC is a straight line.
F is the point on *AD* so that *BFE* is a straight line.

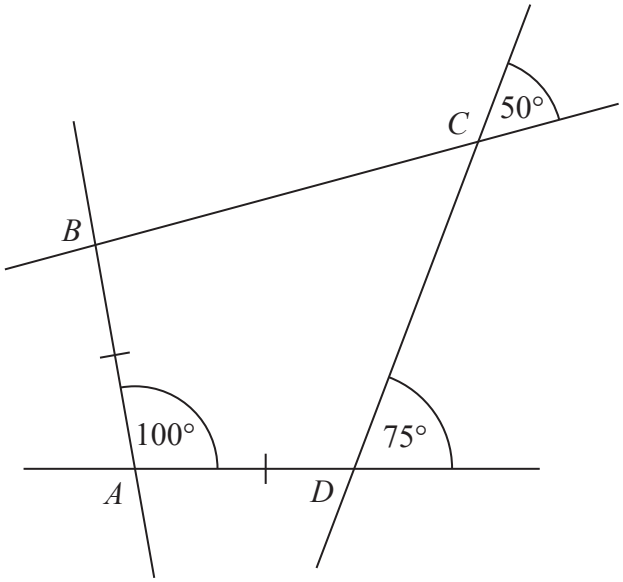
Angle *EFD* = 35°
Angle *DCB* = 75°

Show that angle *ABF* = 70°
Give a reason for each stage of your working.

(Total for Question 14 is 4 marks)

Autumn 2018 Paper 1 Q14

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



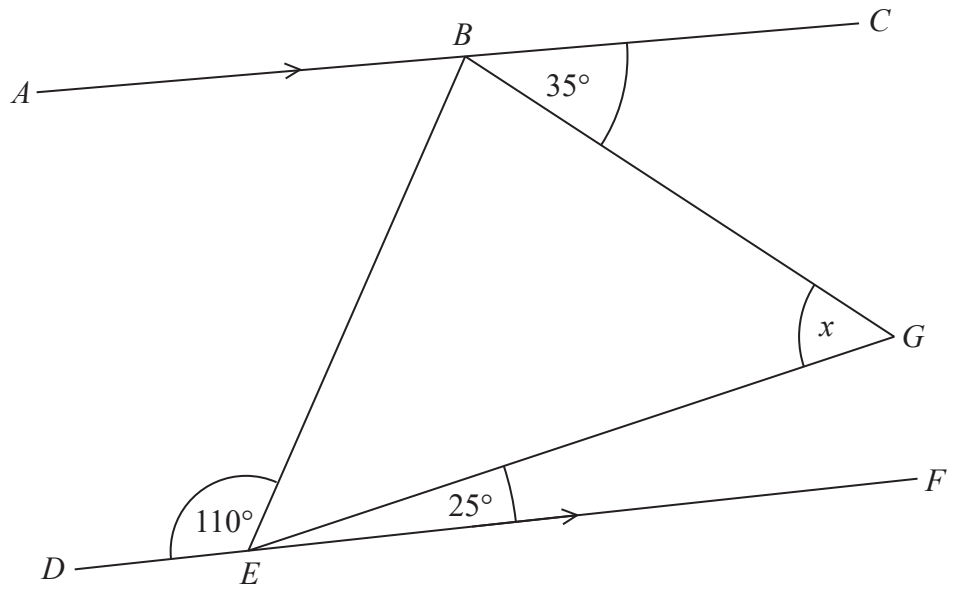
$AB = AD$

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

(Total for Question 15 is 4 marks)

Autumn 2018 Paper 2 Q22

16 *BEG* is a triangle.



ABC and *DEF* are parallel lines.

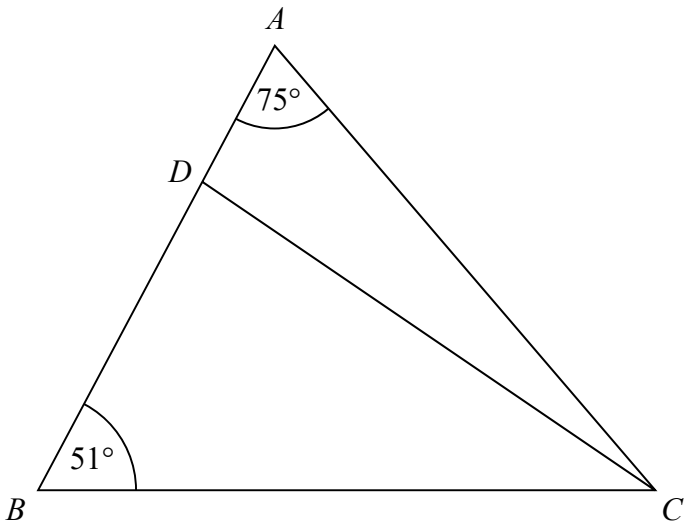
Work out the size of angle *x*.
Give a reason for each stage of your working.

.....°

(Total for Question 16 is 4 marks)

Autumn 2019 Paper 1 Q24

17 The diagram shows triangle *ABC*.



ADB is a straight line.

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

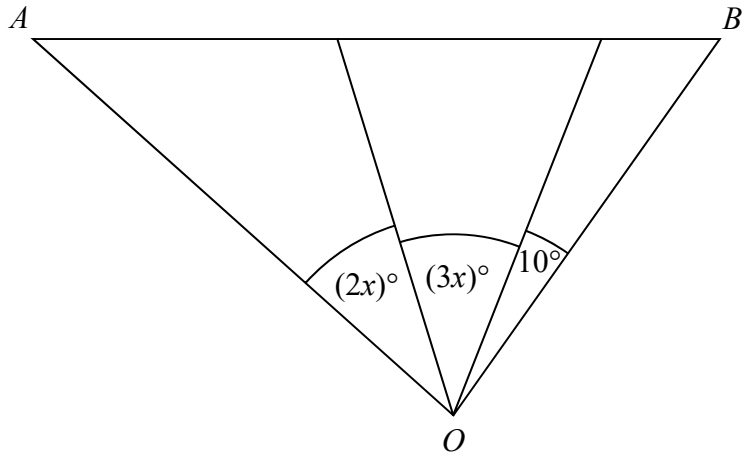
Work out the size of angle *BDC*.

.....°

(Total for Question 17 is 4 marks)

Autumn 2019 Paper 1 Q28

18 The diagram shows triangle *AOB*.



Angle *AOB* is **not** an obtuse angle.

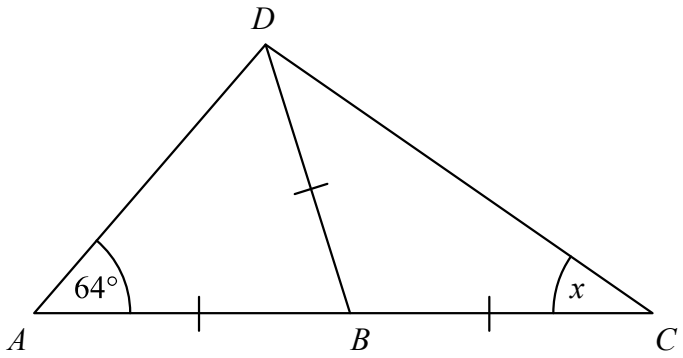
Find the greatest value of x.
You must show all your working.

.....

(Total for Question 18 is 3 marks)

Autumn 2019 Paper 2 Q17

19



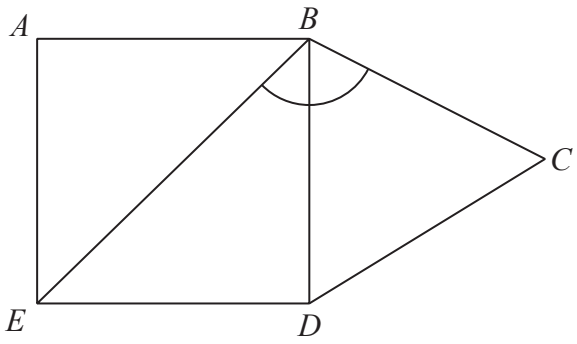
ABC is a straight line.
AB = *BC* = *BD*.
Angle *DAB* = 64°

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

(Total for Question 19 is 4 marks)

Summer 2019 Paper 3 Q20

20 The diagram shows a square *ABDE* and an equilateral triangle *BCD*.



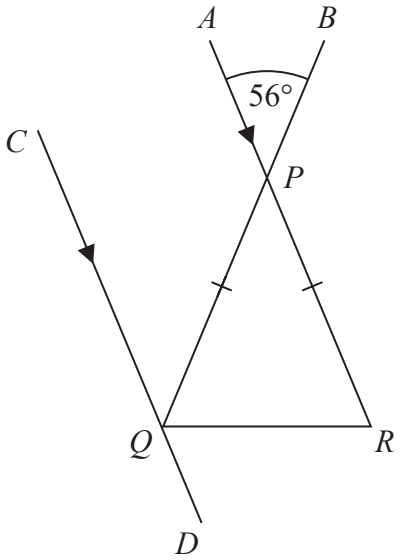
Work out the size of angle *EBC*.

.....°

(Total for Question 20 is 2 marks)

Summer 2022 Paper 3 Q20

21 In the diagram, PQR is an isosceles triangle with $PQ = PR$.



APR and CQD are parallel lines.
BPQ is a straight line.

Angle $APB = 56°$

Work out the size of angle CQR.
Give a reason for each stage of your working.

(Total for Question 21 is 5 marks)