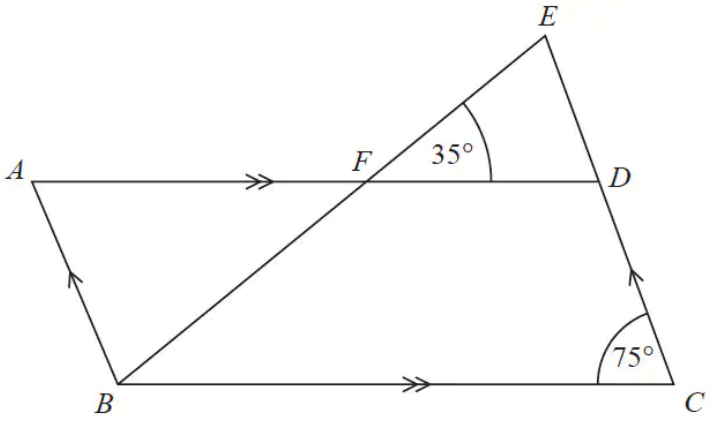
Name:_____

GCSE (1 - 9) Angles in Parallel Lines	Solutions:

These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

Question	Where the question appeared
1	Edexcel, GCSE, Autumn 2017, Paper 1F, Q25
2	Edexcel, GCSE, Summer 2018, Paper 2F, Q15
3	Edexcel, GCSE, Autumn 2018, Paper 2F, Q22
4	Edexcel, GCSE, Summer 2019, Paper 1F, Q12
5	Edexcel, GCSE, Autumn 2020, Paper 1F, Q25
6	Edexcel, GCSE, Summer 2023, Paper 3F, Q22
7	Edexcel, GCSE, Summer 2022, Paper 3F, Q20

1



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°

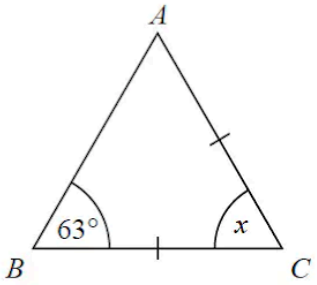
Show that angle *ABF* = 70°
Give a reason for each stage of your working.

(Total for Question 25 is 4 marks)

[Edexcel, GCSE, Autumn 2017, Paper 1F, Q25]

2

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.

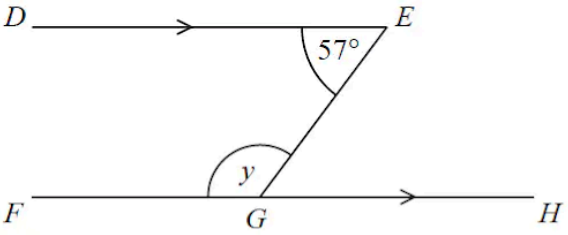
(a) Explain why.

.....

.....

(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.

.....

.....

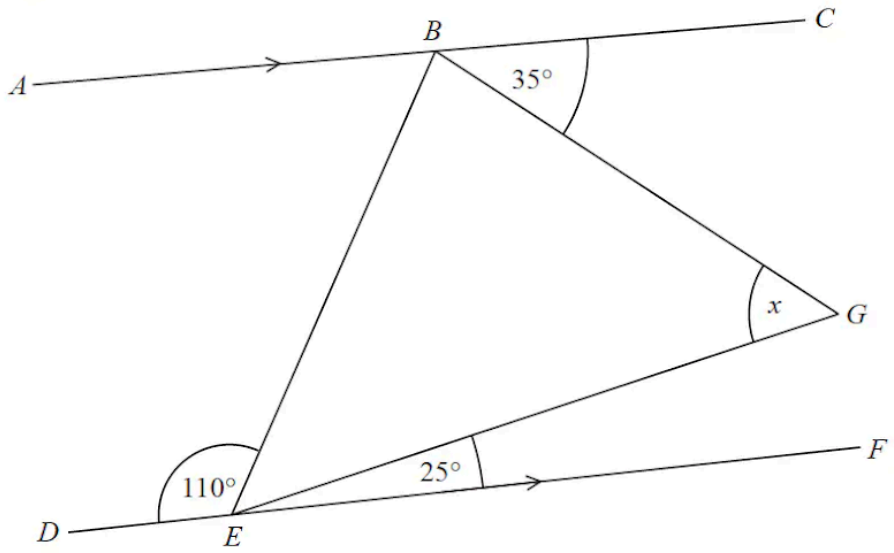
(1)

(Total for Question 15 is 2 marks)

[Edexcel, GCSE, Summer 2018, Paper 2F, Q15]

3

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.

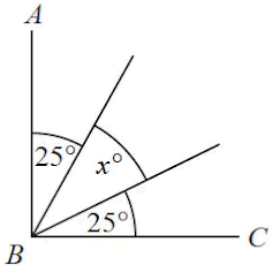
.....°

(Total for Question 22 is 4 marks)

[Edexcel, GCSE, Autumn 2018, Paper 2F, Q22]

4

AB and BC are perpendicular lines.

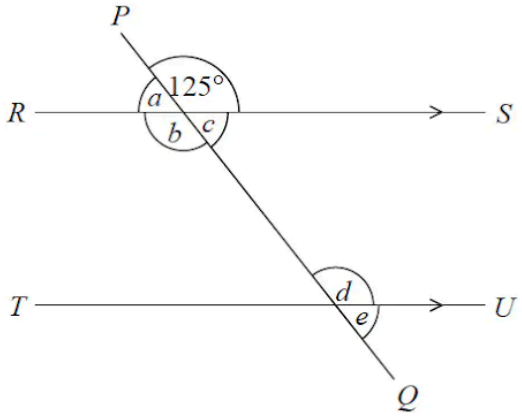


(a) Find the value of x.

$x =$ .....

(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 $a + b + c = 235°$

.....

.....

.....

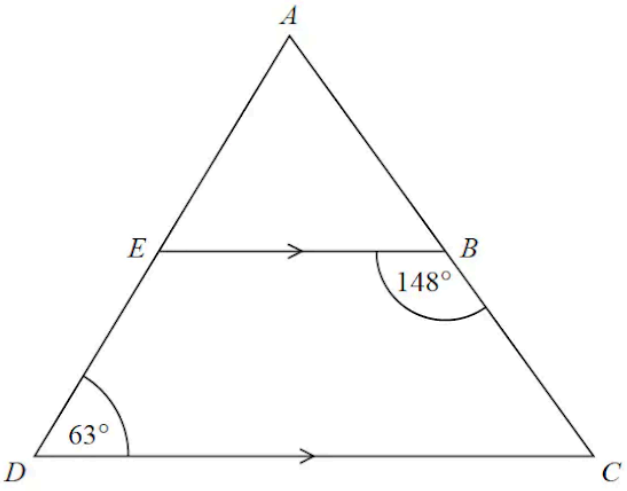
(1)

(Total for Question 12 is 5 marks)

[Edexcel, GCSE, Summer 2019, Paper 1F, Q12]

5

ADC is a triangle.



AED and *ABC* are straight lines.
EB is parallel to *DC*.

Angle *EBC* = 148°
Angle *ADC* = 63°

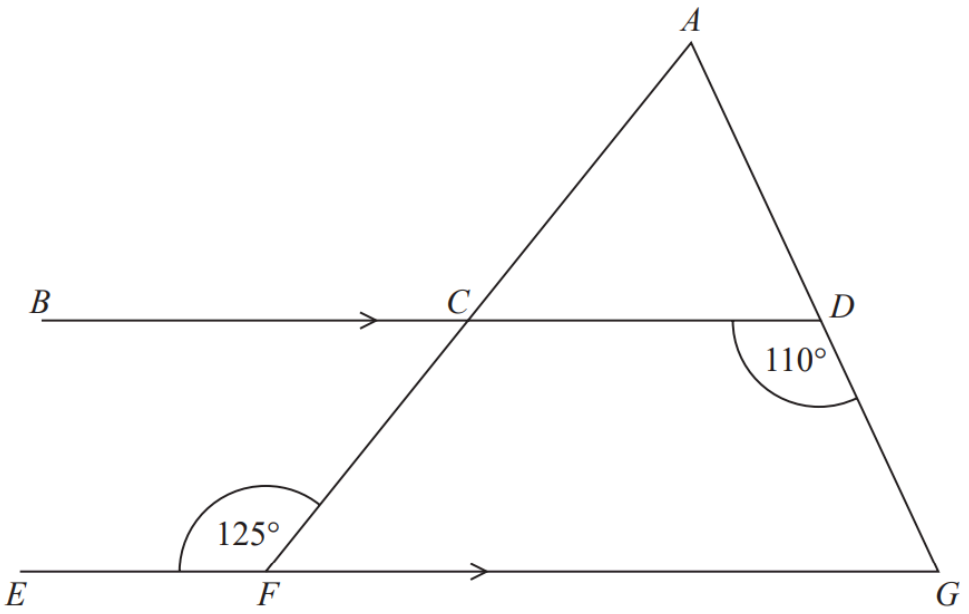
Work out the size of angle *EAB*.
You must give a reason for each stage of your working.

(Total for Question 25 is 5 marks)

[Edexcel, GCSE, Autumn 2020, Paper 1F, Q25]

6

ACF and ADG are straight lines.
BCD and EFG are parallel lines.



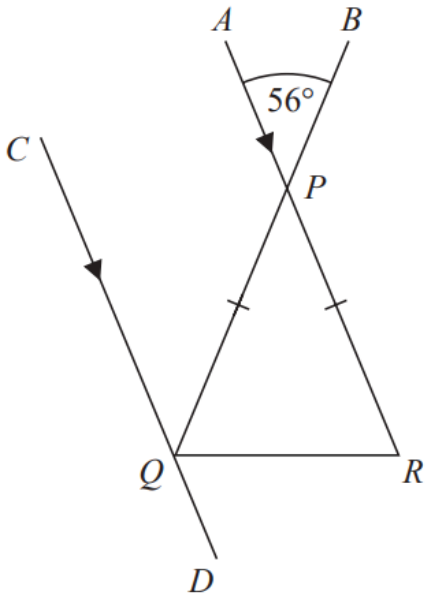
Show that triangle ACD is isosceles.
Give a reason for each stage of your working.

(Total for Question 22 is 5 marks)

[Edexcel, GCSE, Summer 2023, Paper 3F, Q22]

7

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 20 is 5 marks)

[Edexcel, GCSE, Summer 2022, Paper 3F, Q20]