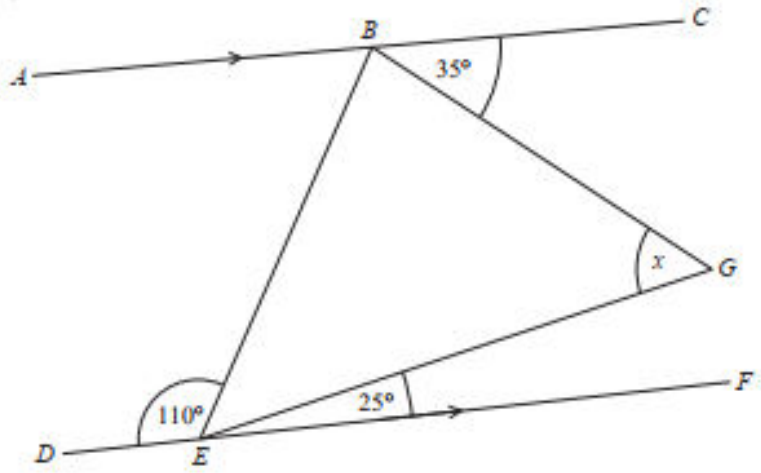
ANGLES IN PARALLEL LINES

Pearson Edexcel - Thursday 8 November 2018 - Paper 2 (Calculator) Higher Tier

1.

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.

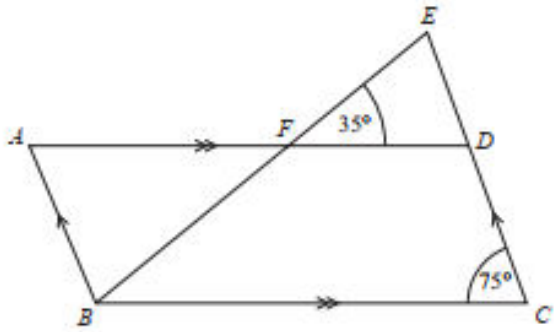
.....°

(Total for Question 3 is 4 marks)

Pearson Edexcel - Thursday 2 November 2017 - Paper 1 (Non-Calculator) Higher Tier

2.

3



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°

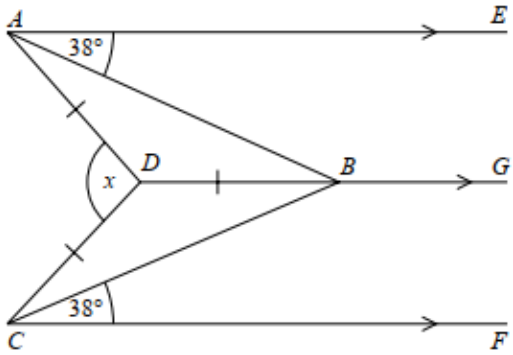
Show that angle *ABF* = 70°
Give a reason for each stage of your working.

(Total for Question 3 is 4 marks)

Pearson Edexcel - Sample Paper 1 - (Non-Calculator) Higher Tier

3.

3



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 is 3 marks)

Pearson Edexcel - Thursday 9 June 2016 - Paper 2 (Calculator) Higher Tier

4.

*9

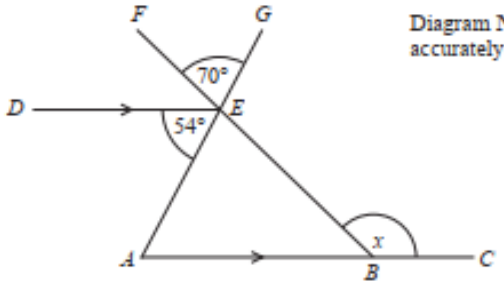


Diagram **NOT** accurately drawn

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 9 is 4 marks)

Pearson Edexcel - Wednesday 4 November 2015 - Paper 1 (Non-Calculator) Higher Tier

5.

6

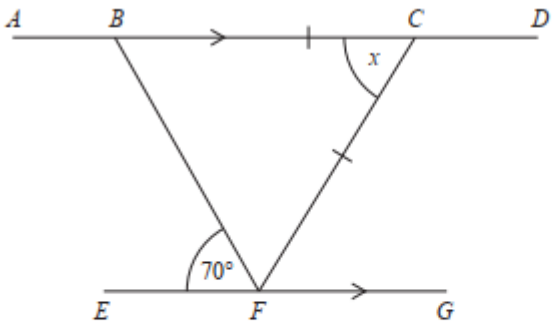


Diagram **NOT** accurately drawn

ABCD and *EFG* are parallel lines.
BC = *CF*
Angle *BFE* = 70°

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

(Total for Question 6 is 4 marks)

Pearson Edexcel - Thursday 4 June 2015 - Paper 1 (Non-Calculator) Higher Tier

6.

'12

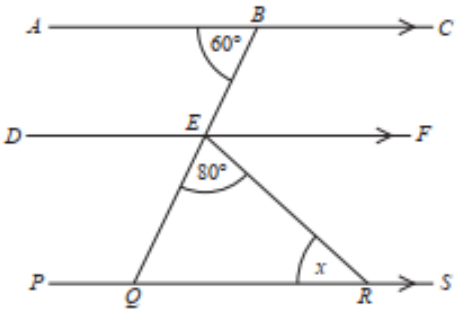


Diagram **NOT** accurately drawn

ABC, *DEF* and *PQRS* are parallel lines.
BEQ is a straight line.

Angle *ABE* = 60°
Angle *QER* = 80°

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

(Total for Question 12 is 4 marks)

Pearson Edexcel - Wednesday 5 November 2014 - Paper 1 (Non-Calculator) Higher Tier

7.

*8

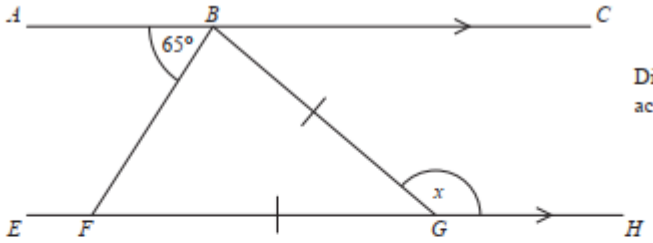


Diagram **NOT** accurately drawn

ABC is parallel to $EFGH$.

$GB = GF$
Angle $ABF = 65°$

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

(Total for Question 8 is 4 marks)

Pearson Edexcel - Friday 13 June 2014 - Paper 2 (Calculator) Higher Tier

8.

*7

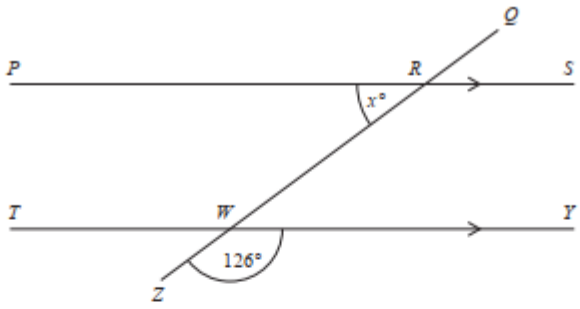


Diagram **NOT** accurately drawn

PRS and *TWY* are parallel straight lines.
QRWZ is a straight line.

Work out the value of x.
Give reasons for your answer.

(Total for Question 7 is 3 marks)

Pearson Edexcel - Friday 14 June 2013 - Paper 2 (Calculator) Higher Tier

9.

9

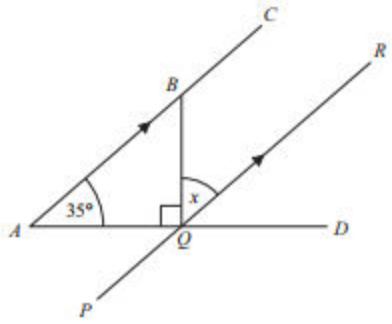


Diagram **NOT** accurately drawn

ABC, *PQR* and *AQD* are straight lines.
ABC is parallel to *PQR*.

Angle *BAQ* = 35°
Angle *BQA* = 90°

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

x = ... °

(Total for Question 9 is 4 marks)

Pearson Edexcel - Thursday 28 February 2013 - Paper 1 (Non-Calculator) Higher Tier

10.

'10

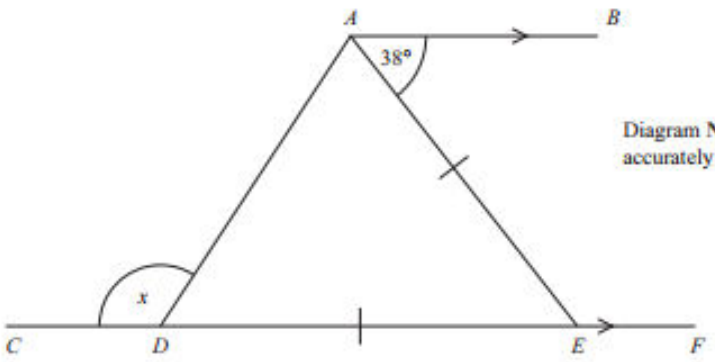


Diagram **NOT** accurately drawn

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.

(Total for Question 10 is 4 marks)

Pearson Edexcel - Thursday 8 November 2012 - Paper 2 (Calculator) Higher Tier

11.

*6

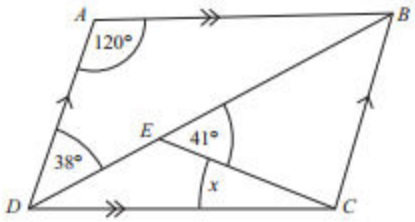


Diagram **NOT** accurately drawn

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 6 is 4 marks)

Pearson Edexcel - Monday 11 June 2012 - Paper 1 (Non-Calculator) Higher Tier

12.

11

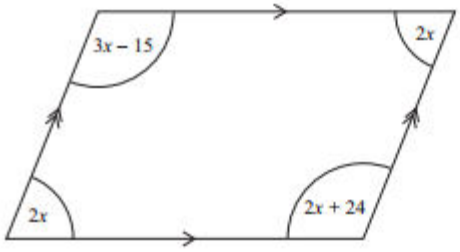


Diagram **NOT** accurately drawn

The diagram shows a parallelogram.
The sizes of the angles, in degrees, are

$2x$
$3x - 15$
$2x$
$2x + 24$

Work out the value of x.

$x =$ .....

(Total for Question 11 is 3 marks)

Pearson Edexcel - Wednesday 13 June 2012 - Paper 2 (Calculator) Higher Tier

13.

1

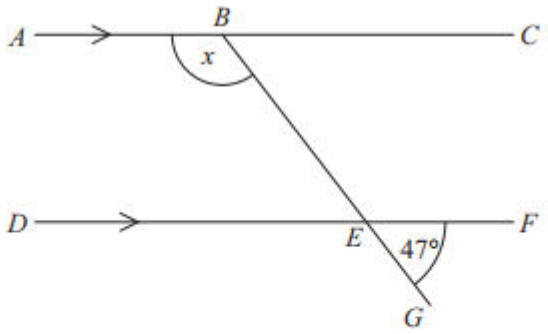


Diagram **NOT** accurately drawn

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.

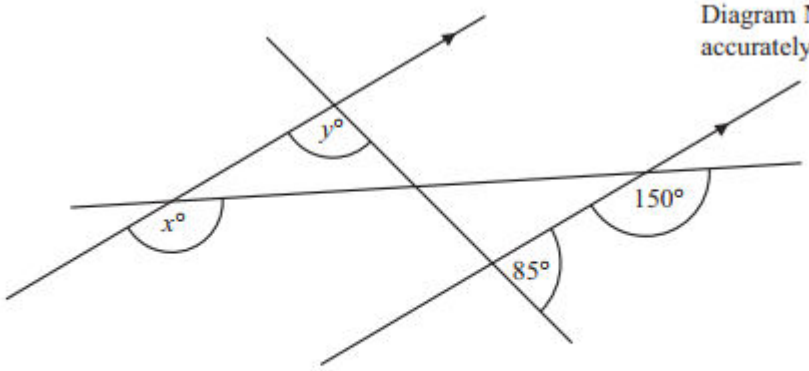
.....°

(Total for Question 1 is 3 marks)

Pearson Edexcel - Friday 2 March 2012 - Paper 3 (Non-Calculator) Higher Tier

14.

4.



(a) Find the value of x.

.....

(1)

(b) Find the value of y.
Give reasons for your answer.

.....

(2)

(Total 3 marks)

Pearson Edexcel - Monday 6 June 2011 - Paper 3 (Non-Calculator) Higher Tier

15.

3.

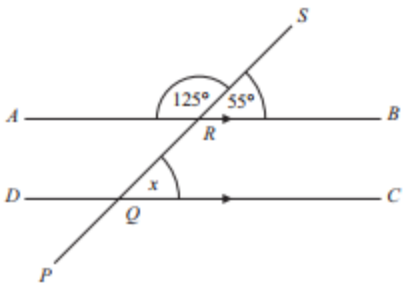


Diagram **NOT** accurately drawn

ARB is parallel to *DQC*.

PQRS is a straight line.

Angle *SRB* = 55°.

(i) Find the size of the angle marked *x*.

..... °

(ii) Give a reason for your answer.

.....

(Total 2 marks)

Pearson Edexcel - Friday 11 June 2010 - Paper 4 (Calculator) Higher Tier

16.

5.

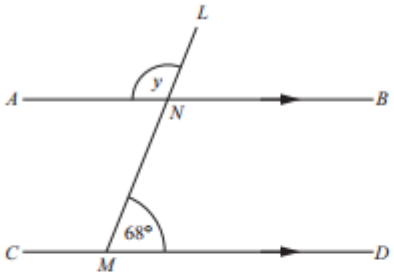


Diagram **NOT** accurately drawn

ANB is parallel to *CMD*.
LNM is a straight line.
Angle *LMD* = 68°

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

..... °

(ii) Give reasons for your answer.

.....

.....

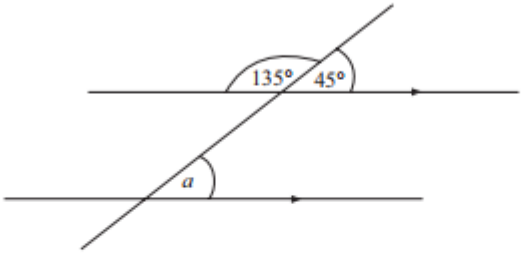
(Total 3 marks)

Pearson Edexcel - Tuesday 10 November 2009 - Paper 4 (Calculator) Higher Tier

17.

6.

Diagram **NOT** accurately drawn



(i) Write down the size of the angle marked a.

..... °

(ii) Give a reason for your answer.

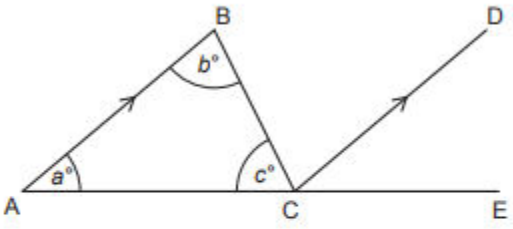
.....

(Total 2 marks)

OCR GSCE – Tuesday 21 May 2019 – Paper 4 (Calculator) Higher Tier

18.

9 The diagram shows triangle ABC.
CD is parallel to AB.
A, C and E lie in a straight line.
Angles of size $a°$, $b°$ and $c°$ are shown.



Not to scale

(a) Insert $a°$, $b°$ or $c°$ to make this statement true.
Give a reason for your answer.

Angle DCE = ... because .....

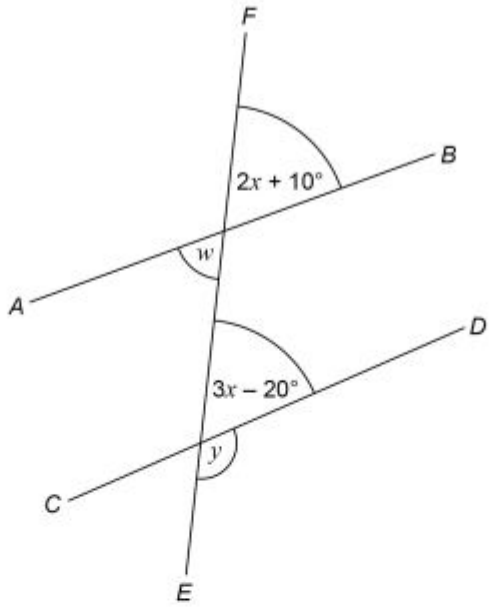
..... **[2]**

(b) Use the diagram and the answer to part **(a)** to show that the angles of a triangle add up to 180°.
Give a reason for each statement you make. **[3]**

AQA GSCE – Tuesday 13 June 2017 – Paper 3 (Calculator) Higher Tier

19.

10 *AB*, *CD* and *EF* are straight lines.



Not drawn accurately

10 (a) Ava assumes that *AB* and *CD* are parallel.

What answer should she get for the size of angle y?

[4 marks]

Answer _____ degrees

10 (b) In fact,

AB and *CD* are **not** parallel

angle w is 60°

What effect does this have on the size of angle y?

Tick a box.

☐ y is bigger

☐ y is the same

☐ y is smaller

Show working to support your answer.

[3 marks]

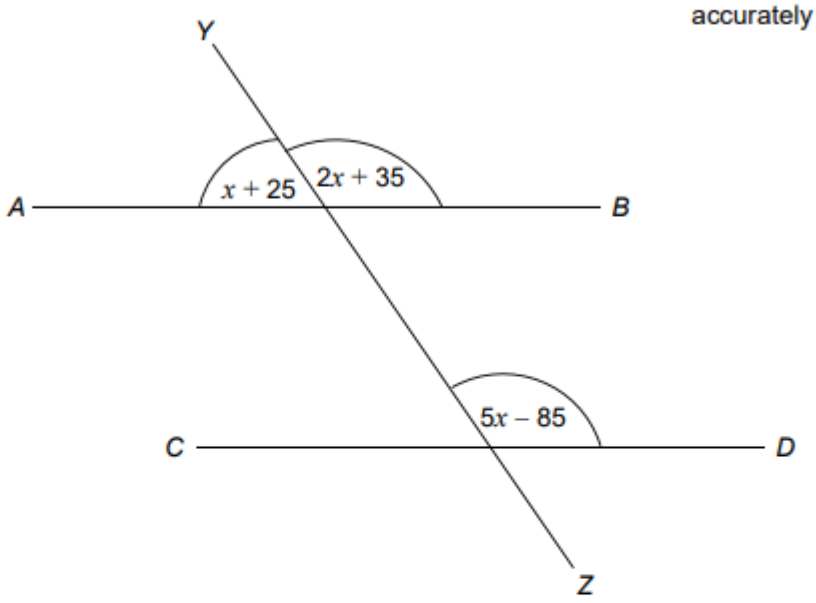
AQA GSCE – Sample Paper 1 (Non - Calculator) Higher Tier

20.

16 *AB*, *CD* and *YZ* are straight lines.

All angles are in degrees.

Not drawn accurately



Show that *AB* is parallel to *CD*.

[4 marks]

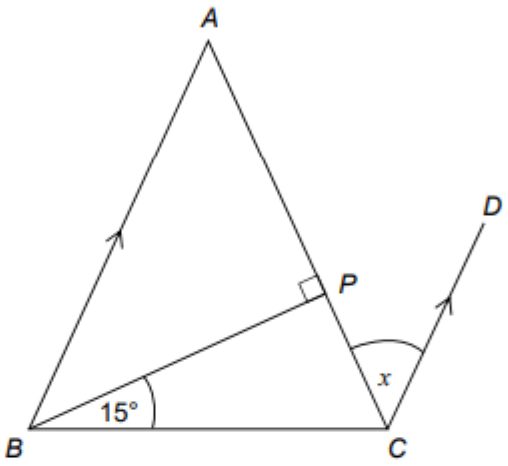
AQA GSCE – Sample Paper 3 (Calculator) Higher Tier

21.

10 *ABC* is a triangle with $AB = AC$

BA is parallel to *CD*.

Not drawn accurately



Show that angle $x = 30°$

[3 marks]