Edexcel GCSE
Mathematics (Linear) – 1MA0

ANGLES:
PARALLEL LINES

Materials required for examination
Ruler graduated in centimetres and millimetres, protractor, compasses, pen, HB pencil, eraser.
Tracing paper may be used.

Items included with question papers
Nil

Instructions
Use black ink or ball-point pen.
Fill in the boxes at the top of this page with your name, centre number and candidate number.
Answer all questions.
Answer the questions in the spaces provided – there may be more space than you need.
Calculators may be used.

Information
The marks for each question are shown in brackets – use this as a guide as to how much time to spend on each question.
Questions labelled with an asterisk (*) are ones where the quality of your written communication will be assessed – you should take particular care on these questions with your spelling, punctuation and grammar, as well as the clarity of expression.

Advice
Read each question carefully before you start to answer it.
Keep an eye on the time.
Try to answer every question.
Check your answers if you have time at the end.
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.

\[ ................. \degree \]

(3 marks)
2. \( DE \) is parallel to \( FG \).

(i) Find the size of the angle marked \( y^\circ \).

\[ \text{.................}^\circ \]  

(ii) Give a reason for your answer.

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(3 marks)
AQB, CRD and PQRS are straight lines.

AB is parallel to CD.

Angle BQR = 113°.

(a) Work out the value of x.

\[ x = \ \text{...} \]

(b) Give reasons for your answer.

\[ \text{...} \]

(4 marks)
4.

(a) i) Find the value of $x$.

.................................................. (1)

ii) Give reasons for your answer.

.................................................. (1)

(b) i) Find the value of $y$.

.................................................. (2)

ii) Give reasons for your answer.

.................................................. (2)

(6 marks)
*5.

ABCD is a parallelogram.

Angle \( \angle ADB = 38^\circ \).
Angle \( \angle BEC = 41^\circ \).
Angle \( \angle DAB = 120^\circ \).

Calculate the size of angle \( x \).
You must give reasons for your answer.

\[ \text{(4 marks)} \]
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.
ABC and DEFG are parallel. 
AEH and BFH are straight lines. 
Work out the size of the angle marked $x^\circ$. 

Diagram NOT accurately drawn

$\begin{array}{c}
\text{Diagram NOT accurately drawn} \\
\end{array}$

\[ \begin{array}{c}
ABC \text{ and DEFG are parallel.} \\
AEH \text{ and BFH are straight lines.} \\
\text{Work out the size of the angle marked } x^\circ. \\
\end{array} \]