Edexcel GCSE
Mathematics (Linear) – 1MA0
MULTIPLICATION AND DIVISION

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.
1. Work out $362 \times 54$
   You must show all your working.

   \[
   \begin{array}{ccc}
   & 300 & 60 \\
   50 & 15000 & 3000 \\
   4 & 1200 & 240 \\
   \hline
   & 15000 & 3000 \\
   & 1200 & 240 \\
   & 100 & 8 \\
   \hline
   & 19548 \\
   \end{array}
   \]

   \[
   \begin{array}{c}
   19548 \\
   \hline
   \end{array}
   \]

   (Total 3 marks)

2. Work out $736 \times 24$
   You must show all your working.

   \[
   \begin{array}{ccc}
   & 700 & 30 & 6 \\
   20 & 14000 & 600 & 120 \\
   4 & 2800 & 120 & 24 \\
   \hline
   & 14000 & 2800 \\
   & 600 & 120 \\
   & 120 & 24 \\
   \hline
   & 17664 \\
   \end{array}
   \]

   \[
   \begin{array}{c}
   17664 \\
   \hline
   \end{array}
   \]

   (Total 3 marks)
The cost of each pencil was the same.  
Work out the cost of 4 of these pencils.

\[56 \div 7 = 8\]  
(one pencil costs 8p)

\[8 \times 4 = 32p\]

4. 487 is divided by 23

What is the remainder?

You must show all your working.

\[
\begin{array}{c}
\phantom{0}\frac{21}{23}\phantom{0}
\\ \phantom{0}\underline{48}\phantom{0}
\\ \phantom{0}87
\end{array}
\]

\[\underline{32p}\]  
(Total 2 marks)
5. Work out $1572 \div 0.3$

You must show all your working.

$$1572 \div 0.3$$

$$1572 \times 10$$

$$0.3 \times 10$$

$$15720$$

$$3$$

$$5240$$

(Total 2 marks)

6. Work out $286 \times 43$

$$
\begin{array}{c|c|c|c}
200 & 80 & 6 \\
\hline
40 & 8000 & 3200 & 240 \\
\hline
3 & 600 & 240 & 18 \\
\end{array}
$$

$$
\begin{array}{c|c|c|c}
8000 & 3200 & 600 \\
\hline
240 & 240 & +18 \\
\hline
12298 \\
\end{array}
$$

(Total 3 marks)
7. Fatima bought 48 teddy bears at £9.55 each.

(a) Work out the total amount she paid.

\[
\begin{array}{c|c|c}
48 & 955 \\
\hline
40 & 8 \\
900 & 3600 & 7200 \\
50 & 2000 & 400 \\
5 & 200 & 40 \\
\hline
\end{array}
\]

\[
\begin{array}{c|c|c}
36000 \\
7200 \\
2000 \\
400 \\
\hline
40 \\
\hline
\end{array}
\]

\[
\frac{45840}{45840} \quad \text{£458.40}
\]

Fatima sold all the teddy bears for a total of £696

She sold each teddy bear for the same price.

(b) Work out the price at which Fatima sold each teddy bear.

\[
\begin{array}{c|c|c|c|c|c}
696 & - & 48 \\
\hline
0 & 1 & 4.5 \\
48 & \overline{69} & 216 & 240 \\
\hline
48 \\
96 \\
144 \\
192 \\
240 \\
\hline
\end{array}
\]

\[
\text{£14.50}
\]
8. Nick takes 26 boxes out of his van. The weight of each box is 32.9 kg.

(a) Work out the total weight of the 26 boxes.

\[
\begin{array}{c|c|c|c}
26 & \times & 32.9 \\
\hline
20 & | & 300 & 20 & 6000 & 400 & 180 & 6000 \\
6 & | & 1800 & 120 & 54 & 180 \\
\hline
6 & | & 1800 & 120 & 54 & 85.54 & 85.54 \\
\hline
\end{array}
\]

Then Nick fills the van with large wooden crates. The weight of each crate is 69 kg. The greatest weight the van can hold is 990 kg.

(b) Work out the greatest number of crates that the van can hold.

\[
\begin{array}{c}
990 \div 69 \\
\hline
69 \overline{999} \div 69 \times 38 \div 38 \\
69 \overline{138} \div 207 \\
138 \div 276 \\
207 \div 345 \\
\hline
14 \\
\hline
\end{array}
\]
9. The cost of a calculator is £6.79.
Work out the cost of 28 of these calculators.

\[
\begin{array}{c|c|c|c}
679 & \times & 28 \\
\hline
600 & 70 & 9 \\
20 & 12000 & 1400 & 180 \\
8 & 4800 & 560 & 72 \\
\hline
\end{array}
\]

\[
\begin{array}{c|c|c|c}
 & 12000 & \\
\hline
4800 & 1400 & 560 & 180 \\
+ & 72 & \\
\hline
19012 & \\
\end{array}
\]

£190.12
(Total 3 marks)

10. Work out \(3.15 \times 24\)

\[
\begin{array}{c|c|c|c}
300 & 10 & 5 \\
\hline
20 & 6000 & 200 & 100 \\
4 & 1200 & 40 & 20 \\
\hline
\end{array}
\]

\[
\begin{array}{c|c|c|c|c|c|c|c|c}
 & 6000 & \\
\hline
1200 & 200 & 100 & 40 & + & 20 & \\
\hline
7560 & \\
\end{array}
\]

75.6
(Total 3 marks)
11. ‘Jet Tours’ has an aeroplane that will carry 27 passengers.

Each of the 27 passengers pays £55 to fly from Liverpool to Prague.

Work out the total amount that the passengers pay.

\[
\begin{array}{c|c|c}
20 & 1000 & 50 \\
100 & 5 & 5 \\
7 & 350 & 35 \\
\hline
& 1000 & 100 \\
& 350 & 35 \\
\hline
& & 1485 \\
\end{array}
\]

£ \ldots \ldots 1485 \\
(Total 2 marks)

12. Canal boat for hire £1785.00 for 14 days

What is the cost per day of hiring the canal boat?

\[
1785 \div 14
\]

\[
\begin{array}{c}
14 \overline{)1785} \\
14 \overline{)1785} \\
\hline
1185 \\
-1185 \\
\hline
10
\end{array}
\]

£ \ldots \ldots 127.50 \\
(Total 3 marks)