Edexcel GCSE
Mathematics (Linear) – 1MA0

BEST BUYS

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. Two shops, Food Mart and Jim’s Store, both sell Kreemy Yoghurts.

At which shop are Kreemy Yoghurts the better value for money?
You must show all your working.

\[
\begin{align*}
\text{Food Mart} \\
\text{Kreemy Yoghurts} \\
5 \text{ for £1.80} \\
\hline
\text{Jim’s Store} \\
\text{Kreemy Yoghurts} \\
3 \text{ for £1.05}
\end{align*}
\]

\[
\begin{align*}
\text{Kreemy Yoghurts} \\
15 \text{ Yoghurts} : \\
\£1.80 \times 3 \\
= \£5.40
\end{align*}
\]

\[
\begin{align*}
\text{Jim’s Store} \\
15 \text{ Yoghurts} \\
\£1.05 \times 5 \\
= \£5.25
\end{align*}
\]

Jim’s store is better value for money.
A pack of 9 toilet rolls costs £4.23
A pack of 4 toilet rolls costs £1.96

Which pack gives the better value for money?

You must show all your working.

\[
\begin{align*}
\text{Pack of 9} \\
36 \text{ Rolls:} \\
£4.23 \times 4 \\
= £16.92 \\
\text{Pack of 4} \\
36 \text{ Rolls:} \\
£1.96 \times 9 \\
= £17.64 \\
\end{align*}
\]

The pack of 9 is better value for money.

Pack of 9

(3 marks)
3. T-shirts normally cost £12 each.

Two shops have a special offer on these T-shirts.

**T-Shirts-R-Us**

<table>
<thead>
<tr>
<th>Special offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay for two T-shirts and get one free. = 3</td>
</tr>
<tr>
<td>Pay for five T-shirts and get three free = 8</td>
</tr>
</tbody>
</table>

**Budget Shirt Company**

<table>
<thead>
<tr>
<th>Special offer</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/3 off normal price</td>
</tr>
</tbody>
</table>

Stephen wants to buy 30 T-shirts.

Work out at which shop, Stephen will get the better deal.
You must show clearly how you got your answer.

\[
\begin{align*}
\text{T-Shirts R Us} & \quad \text{Budget Shirt Company} \\
(2u) \quad 3 \times 5 \text{ Shirts} & = 3 \times 5 \times 12 = \frac{2}{3} \times 30 \times 12 \\
(6) \quad 2 \times 2 \text{ Shirts} & = 2 \times 2 \times 12 = 48 \\
\underline{\text{£228}} & \quad \underline{\text{£240}} \\
\text{Stephen will get a better deal at T-Shirts-R-U} & \text{s} \\
\end{align*}
\]

(4 marks)
4. Potatoes cost £9 for a 12.5 kg bag at a farm shop.
The same type of potatoes cost £1.83 for a 2.5 kg bag at a supermarket.

Where are the potatoes the better value, at the farm shop or at the supermarket?
You must show your working.

\[
\begin{align*}
\text{Farm shop} & \quad \text{Supermarket} \\
£9 \text{ for } 12.5 \text{ kg} & \quad £1.83 \times 5 \quad (\text{for } 12.5 \text{ kg}) \\
\text{} & \quad = £9.15 \\
\text{The farm shop is better value for money} &
\end{align*}
\]

(4 marks)

5. Radox Handwash cost is on offer at Boots and Superdrug.

Boots \hspace{1cm} 500ml bottles on offer at 3 for 2
Superdrug \hspace{1cm} 300ml bottles on offer at buy one get one free

Where is the handwash better value, at Boots or Superdrug?
You must show your working.

\[
\begin{align*}
\text{Boots} & \quad \text{Superdrug} \\
\text{Buy 2 get 1500ml} & \quad \text{Buy 2 get 1200ml} \\
\text{} & \\
\text{Assuming they are the same price...} &
\end{align*}
\]

Boots is better value for money

(4 marks)
6. Carrots cost £1 for a 1.2 kg bag at Tesco.
The same type of carrots cost 77 pence for a 700 g bag at ASDA.

Where are the Carrots better value.
You must show your working.

\[
\begin{array}{cc}
\text{Tesco} & \text{ASDA} \\
£1 & 77p \\
for 1.2kg & for 700g \\
11p & 1.32 \\
for 100g & for 1.2kg \\
\end{array}
\]

\text{Tesco is better value for money}

\text{-------------------------- (4 marks)--------------------------}

7. Diet Coke is on offer at Morrisons and Sainsburys.

\begin{align*}
\text{Morrisons:} & \quad \text{2 litre bottles on offer 3 for £4.50} \\
\text{Sainsburys:} & \quad \text{24 cans x 330ml on offer for £8.85}
\end{align*}

\[
\begin{array}{cc}
\text{Morrisons} & \text{Sainsburys} \\
6 \text{ litres for £4.50} & 330 \\
2 \text{ litres for £1.50} & \frac{\text{8.85}}{1.320} \\
8 \text{ litres for £6} & \frac{\text{9.20}}{6.680} \\
\end{array}
\]

\text{Morrison is better value for money}

\text{-------------------------- (4 marks)--------------------------}
8. Thomas wants to buy an iPod. The iPod that Thomas wants is sold in two different shops.

\[
\text{Pod Direct} \hspace{1cm} \text{Music City}
\]

\[
15\% \text{ OFF usual price of £120} \hspace{1cm} £84 \text{ plus VAT at } 17\frac{1}{2}\% 
\]

Work out the difference in the cost of the iPod at the two shops...

\[
\text{Pod Direct} \hspace{1cm} \text{Music City}
\]

\[
£120 \hspace{1cm} £84
\]

\[
10\% = £12 \hspace{1cm} 10\% = £18.40
\]

\[
5\% = £6 \hspace{1cm} 5\% = £14.20
\]

\[
15\% = £18 \hspace{1cm} 2.5\% = £2.10
\]

\[
17.5\% = £14.70 \hspace{1cm} 17.5\% = £14.70
\]

\[
£120 - £18 = £102 \hspace{1cm} £84 + £14.70 = £98.70
\]

\[
£102 - £98.70 = £3.30
\]

£3.30

(5 marks)
Railtickets and Cheaptrains are two websites selling train tickets.

Each of the websites adds a credit card charge and a booking fee to the ticket price.

<table>
<thead>
<tr>
<th>Railtickets</th>
<th>Cheaptrains</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit card charge: 2.25% of ticket price</td>
<td>Credit card charge: 1.5% of ticket price</td>
</tr>
<tr>
<td>Booking fee: 80 pence</td>
<td>Booking fee: £1.90</td>
</tr>
</tbody>
</table>

Nadia wants to buy a train ticket. The ticket price is £60 on each website. Nadia will pay by credit card.

Will it be cheaper for Nadia to buy the train ticket from Railtickets or from Cheaptrains?

\[
\begin{align*}
\text{Railtickets} & \quad \text{Cheaptrains} \\
1\% & = 60p \\
0.5\% & = 30p \\
0.25\% & = 15p \\
2\% & = £1.20 \\
\end{align*}
\]

\[
\begin{align*}
\text{Railtickets} & \quad \text{Cheaptrains} \\
2.25\% & = £1.35 \\
£1.35+0.80 & = £2.15 \\
\end{align*}
\]

\[
\begin{align*}
\text{Railtickets} & \quad \text{Cheaptrains} \\
0.90 + 1.90 & = £2.80 \\
\end{align*}
\]

Railtickets is cheaper.

(4 marks)