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.
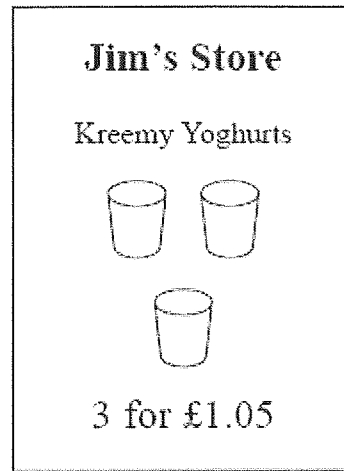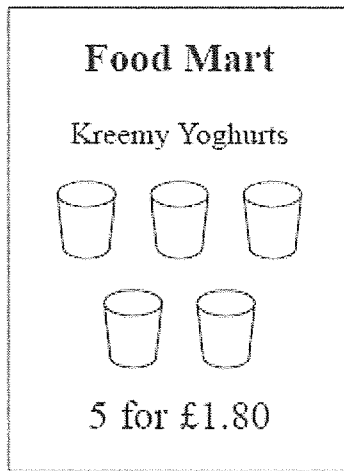
Advice

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.

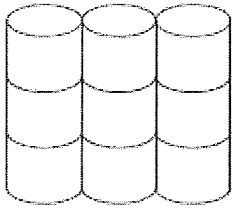| Food Mart	Jim's Store
Kreemy Yoghurts	Kreemy Yoghurts
5 for £1.80	3 for £1.05

At which shop are Kreemy Yoghurts the better value for money?
You must show all your working.
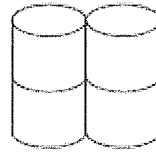
Food Mart $1.80 \div 5 = £0.36$ each

Jim's Store $1.05 \div 3 = £0.35$ each

Jim's store cheaper by 1p

2.

Pack of 9
toilet rolls
£4.23

Pack of 4
toilet rolls
£1.96

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.

Pack of 9

£4.23 ÷ 9

= £0.47 each

Pack of 4

£1.96 ÷ 4

£0.49 each

Pack of 4 cost 2p per roll less
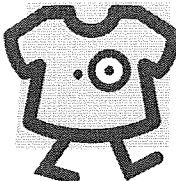
Pack of 4 ....

*3. T-shirts normally cost £12 each.

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

T-Shirts-R-Us

Special offer
Pay for two T-shirts and get one free.
Pay for five T-shirts and get three free

Budget Shirt Company

Special offer

1/3 off normal price

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.

T-Shirts -R-Us

Buy		Free
5	→	3
5	→	3
5	→	3
2	→	1
+ 2	→	1
19	→	11

19 × 12
= £228

Budget Shirt Company

$\frac{1}{3}$ of £12 = £4

£12 - £4 = £8

30 × £8 = £240

Budget cheaper by £12

....

(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.

     Farm Shop
     £9·00 ÷ 12·5
        = 72p /kg

     SuperMarket
     £1·83 ÷ 2·5
        = 73·2p /kg

     Farm shop is cheaper
     by 1·2p per kg

     ....

     (4 marks)

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

     Boots   500ml bottles on offer at 3 for 2
     Superdrug   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.

     ....

     (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.

Tesco   ASDA

£1·00 ÷ 1·2   £0·77 ÷ 0·7

= 83·3p/kg   = £1·10/kg

Tesco's are cheaper by 26·6p/kg

....

(4 marks)

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

Morrisons: 2 litre bottles on offer 3 for £4.50
Sainsburys: 24 cans x 330ml on offer for £8.85

Morrisons   Sainsburys

3 × 2 = 6 litre   24 × 0·330 = 7·92 litre

£4·50 ÷ 6 = 75p/litre   £8·85 ÷ 7·92 = £1·12/litre

Morrisons cheaper by 37p/litre

....

(4 marks)

8. Thomas wants to buy an iPod.
The iPod that Thomas wants is sold in two different shops.

Pod Direct	Music City
15% OFF usual price of £120	£84 plus VAT at 17½ %

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

Pod Direct

$15\% \ \text{of} \ £120 = £18$

$\text{Cost} = 120 - 18$

$= £102$

Music City

$17½\% \ \text{of} \ £84 = £14.70$

$\text{Cost} = 84 + 14.70$

$= £98.70$

Music City is cheaper
by £3.30

£ 3.30

(5 marks)

*9. 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.

Railtickets	**Cheaptrains**
Credit card charge: 2.25% of ticket price	Credit card charge: 1.5% of ticket price
Booking fee: 80 pence	Booking fee: £1.90

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?

Rail tickets

* Ticket   £60
* Charge   £1.35
   0.0225 × 60
* Booking Fee   £0.80
        Total Cost £62.15

Cheaptrains

* Ticket   £60
* Charge   £0.90
   0.015 × 60
* Booking fee   £1.90
        Total Cost £62.80

Rail tickets are cheaper
by 65p

Railtickets ....