



Lite GCSE Maths

Money Problem Solving 2

Name: _____

Class: _____

Solutions

Author:

Date:

Time: **32**

Marks: **28**

Comments:

Q1. This is part of Sari's electricity bill.

OHM Electricity Company	
Present reading	7466 units
Last reading	6942 units
Each unit costs 4.5p	

How much does she pay? $\begin{array}{r} 7466 \\ 6942 - \\ \hline 524 \end{array}$

Units used

$\underline{524}$

$$524 \times 4.5p = 2358p$$

Answer £ $\underline{23.58}$

(Total 4 marks)

$$\begin{array}{r} 524 \\ 4.5 \\ \hline 2620 \\ 20960 \\ \hline 2358.0 \end{array}$$

Q2. The table shows UK postal rates.

	Weight	First Class	Second Class
Letter	0 —100g	£0.34	£0.24
Large Letter	0 —100g	£0.48	£0.40
	101—250g	£0.70	£0.60
	251—500g	£0.98	£0.83
	501—750g	£1.42	£1.20
Packet	0 —100g	£1.09	£0.92
	101—250g	£1.38	£1.20
	251—500g	£1.84	£1.52
	501—750g	£2.38	£1.92
	751—1000g	£2.92	£2.30
	1001—1250g	£4.25	Please note items heavier than 1000 g cannot be sent Second Class
	Each additional 250 g or part thereof	+ £0.75	

(a) What is the cost of sending a 225 g large letter using First Class?

Answer £ 0.70

(1)

(b) What is the weight of the heaviest item that can be sent Second Class?

Answer ~~£~~ 1000g

(1)

(c) A packet weighs 1.3 kg.

How much does it cost to send it using First Class?

£4.25 + £0.75 = £5.00

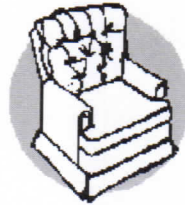
Answer £5.00 ~~g~~

(3)

(Total 5 marks)

- Q3. Three shops advertise the same luxury chair. Each shop has a special offer.

Shop A
Chair – normal price £600
Special Offer – 30% off normal price



Shop B
Chair – normal price £550
Special Offer – $\frac{1}{5}$ off normal price

Shop C
Chair – normal price £820
Special Offer – buy one get one free

Shop A

$$10\% = £60$$

$$30\% = £180$$

$$\text{Chair price } £600 - £180 = £420$$

$$2 \text{ chairs} = £840$$

Shop B

$$£550 \div 5 = £110$$

$$\text{Chair price} = £550 - £110 = £440$$

$$2 \text{ chairs} = £880$$

- (a) Mutasem wants to buy **two** of these luxury chairs.

At which shop is the price of the two chairs the cheapest?
You **must** show your working.

Shop C 2 chairs for £820

$$£820 < £840 < £880$$

$$C < A < B$$

Answer: Shop **C**

(5)

- (b) Mutasem wants to have the chairs delivered.
The table shows the delivery cost and the delivery time for each shop.

Shop	Total delivery cost	Delivery time
A	Free	3 weeks
B	£20	Next day
C	£10	8 weeks

TOTAL COST

$$£840$$

$$£890$$

$$£830$$

Taking everything into account give a reason why each shop could be the best choice.

Shop A

Reason **Only £10 more than option C but much quicker delivery than C**

Shop B

Reason Dearest but instant delivery

Shop C

Reason Cheapest if delivery time
unimportant

(3)
(Total 8 marks)

Q4.

- (a) Travelling 10 000 kilometres costs £800 for petrol.

How much does it cost to travel 12 500 kilometres?

$$£800 \times 1.25 = £1000$$

Answer £ 1000

(1)

- (b) Last year Mr Taylor travelled 15 000 km in his car and spent £1200 on petrol.
This year he expects to travel 20 000 km.

He estimates that the price of petrol has increased by 10% on what it was last year.

How much should Mr Taylor expect to pay for petrol this year?

$$15000 : 20000 = 3 : 4$$

Cost at last year's prices

$$£1200 \times \frac{4}{3} = £1600$$

Cost at this year's prices

$$£1600 \times 1.1 = £1760$$

Answer £ 1760

(4)
(Total 5 marks)

Q5.

- (a) Caroline buys 1.4 kilograms of bananas at 95 pence per kilogram.
She also buys 0.8 kilograms of apples.
Her total bill is £1.93
How much per kilogram was she charged for the apples?

$$\text{Bananas } 95 \times 1.4 = 133p$$

$$\text{Bill for apples } 193 - 133 = 60p$$

$$0.8 \text{ kg of apples for } 60p$$

$$1 \text{ kg} = 60 \div 0.8 = 75p$$

Answer 75 pence

(4)

- (b) Jane spends £4.50 on fruit.
Her total bill is £22.50
What percentage of her total bill is for fruit?

$$\frac{4.50}{22.50} \times 100 = 20\%$$

Answer 20 %

(2)

(Total 6 marks)