

## Questions

**Q1.**

Neil buys 30 pens, 30 pencils, 30 rulers and 30 pencil cases.

Price list	
pens	6 for 82p
pencils	15 for 45p
rulers	10 for £1.25
pencil cases	37p each

What is the total amount of money Neil spends?

£ .....

**(Total for question = 5 marks)**

**(Q08 1MA1/2F, June 2018)**

**Q2.**

Ellie makes hats.

She makes at least 17 hats per hour.

She is paid 46p for each hat she makes.

Reaze is a waiter.

He works 35 hours and is paid a total of £266

Show that Ellie's hourly rate of pay is more than Reaze's hourly rate of pay.

**(Total for question = 3 marks)**

**(Q13 1MA1/2F, Nov 2017)**

**Q3.**

Here is the charge at a car park in Spain.

<p style="text-align: center;">Car park 0.024 euros per minute</p>
--

Jon parked his car in this car park.

Jon drove into the car park at 10 45

When he drove out of the car park he had to pay 8.40 euros.

At what time did Jon drive out of the car park?

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**(Total for question = 3 marks)**

**(Q10 1MA1/2F, Nov 2019)**

**Q4.**

Karim buys 200 tiles.

The tiles are sold in boxes.

There are 25 tiles in each box.

Each box of tiles costs £9.75

Work out the total cost of the boxes of tiles Karim buys.

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£ .....

**(Total for question = 3 marks)**

**(Q08 1MA1/3F, Nov 2020)**

**Q5.**

Here are the costs of the same type of batteries in two shops.

Shop <b>A</b> Pack of 4 batteries £1.60	Shop <b>B</b> Pack of 6 batteries £2.70
---	---

Harry needs to buy at least 30 batteries.  
He assumes that he has to buy batteries in whole packs.  
Harry wants to buy the batteries as cheaply as possible from the same shop.

(a) Which shop should he buy the batteries from, shop **A** or shop **B**?

You must show all your working.

(4)

Harry's assumption is wrong.  
He can buy single batteries for 40p each in shop **A** and for 45p each in shop **B**.

(b) Does this affect which of these two shops Harry should buy the batteries from?

Give a reason for your answer.

.....  
.....  
.....

(1)

**(Total for question = 5 marks)**

**Q6.**

The table shows the costs of sending a parcel by the Express service and by the Rapid service.

Type of service	Cost
Express	£15.25
Rapid	£35.38

Brendan has to send 12 parcels.

It will be cheaper to send the parcels by the Express service than by the Rapid service.

(a) How much cheaper?

£ .....

(3)

Luke wants to send 21 parcels by the Express service.

He does the calculation  $20 \times £15 = £300$  to estimate the cost.

(b) Explain why Luke's calculation shows the actual cost will be more than £300

.....  
.....  
.....

(1)

**(Total for question = 4 marks)**

**Q7.**

Curtis needs to buy some items for his sports club.

Here are the prices.

Item	Price
Footballs	£9.50 each
Hockey sticks	£30 for 2
Cricket bats	£23 each
Tennis balls	£5 for 4

Curtis needs to buy

- 5 footballs
- 6 hockey sticks
- 2 cricket bats
- 4 tennis balls.

Curtis has £200 to spend.

Show that Curtis can buy all the items he needs.

**(Total for question = 4 marks)**

**(Q08 1MA1/2F, Nov 2023)**

**Q8.**

3 kg of flour costs £4.05

5 kg of flour and 6 kg of sugar cost £11.85

Work out the cost of 2 kg of flour and 5 kg of sugar.

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£ .....

**(Total for question = 4 marks)**

**(Q14 1MA1/2F, Nov 2023)**

**Q9.**

Lucia is going on a skiing holiday.

The cost of ski hire is £26 per day.

The cost of a lift pass is £45 per day.

The cost of ski lessons is £23.50 per hour.

Lucia will pay for

ski hire for 5 days

a lift pass for 4 days

ski lessons for 8 hours.

Lucia has £500

Show that Lucia has enough money to pay for the total cost of ski hire, the lift pass and the ski lessons.

**(Total for question = 3 marks)**

**(Q09 1MA1/3F, June 2024)**

**Q10.**

Rehan is on holiday in the USA.

He has \$200 to spend on clothes.

Rehan buys

1 pair of trainers costing \$60

3 T-shirts costing \$25 each.

He also wants to buy a jacket costing \$80

(a) Has Rehan got enough money to buy the jacket?

You must show how you get your answer.

(3)

The trainers cost \$60

The exchange rate is \$1 = £0.749

Rehan says,

"The trainers cost less than £40"

Rehan is wrong.

(b) Using a suitable approximation, show working to explain why.

(2)

**(Total for question = 5 marks)**

**(Q12 1MA1/1F, Nov 2019)**

**Q11.**

Remi invests £600 for 5 years in a savings account.  
By the end of the 5 years he has received a total of £75 simple interest.

Work out the annual rate of simple interest.

..... %

**(Total for question = 3 marks)**

**(Q15 1MA1/2F, Nov 2018)**

**Q12.**

Annie sold

- 45 books at £1.20 each
- 34 candles at £1.50 each
- some calendars at 90p each

She got a total of £150

Work out how many calendars Annie sold.

.....

**(Total for question = 4 marks)**

**(Q13 1MA1/3F, Nov 2018)**

**Q13.**

Harry is planning a holiday for 4 people for 7 days.

Here are the costs for the holiday for **each person**.

Travel	£150
Hotel	£50 for each day
Spending money	£250

Work out the total cost of the holiday for 4 people for 7 days.

£ .....

**(Total for question = 4 marks)**

**(Q06 1MA1/1F, June 2019)**

**Q14.**

Dave goes into a cafe and buys 2 cups of coffee and a piece of cake.

Each cup of coffee costs £2.75

The cake costs £2.90

Dave pays with a £10 note.

He thinks he will get more than £1.50 in change.

Is Dave correct?

You must show how you get your answer.

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**(Total for question = 3 marks)**

**(Q06 1MA1/2F, June 2019)**

**Q15.**

Akhtar, Ben and Carl each have some money.

Akhtar has £65

Ben has £100

Carl has three £5 notes, one £20 note and some £10 notes.

The mean amount of money per person is £80

How many £10 notes does Carl have?

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.....  
**(Total for question = 4 marks)**

**(Q20 1MA1/3F, Nov 2020)**

**Q16.**

Danny buys,

1 loaf of bread for £1.20

1 bottle of milk for 70p

2 packets of cheese for £2.30 each packet

Danny pays with a £10 note.

He says,

"I should get £3.30 change."

Is Danny correct?

You must show how you get your answer.

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**(Total for question = 3 marks)**

**(Q09 1MA1/1F, Nov 2021)**

**Q17.**

On Monday, Sandy pays for 2 plane tickets, 7 nights in a hotel and 2 theme park tickets.

	dollars
each plane ticket	600
each night in a hotel	120
each theme park ticket	250

Show that Sandy pays more than 2500 dollars on Monday.

**(Total for question = 3 marks)**

**(Q08 1MA1/3F, Nov 2021)**

**Q18.**

Corina has £300 to spend on books.  
Each book costs £4.85

Work out the greatest number of books Corina can buy.

.....  
**(Total for question = 3 marks)**

**(Q10 1MA1/3F, Nov 2021)**

**Q19.**

Simon buys some candles.  
Each candle costs £2

Simon pays with a £20 note.  
He gets £6 change.

Work out the number of candles Simon buys.

.....  
**(Total for question = 3 marks)**

**(Q07 1MA1/1F, June 2022)**

**Q20.**

At the end of October, Fiona's electricity meter reads 88 738 kWh.  
At the end of November, her electricity meter reads 89 198 kWh.

Each kWh of electricity Fiona uses costs 16p

Work out how much Fiona had to pay for the electricity she used in November.

.....  
**(Total for question = 4 marks)**

**(Q11 1MA1/1F, June 2022)**

**Q21.**

Sonia wants to book a holiday.  
The holiday will cost £1428

Sonia will pay a deposit of £150  
She will then pay the rest of the cost in 6 equal monthly payments.

How much is each monthly payment?

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£ .....

**(Total for question = 3 marks)**

**(Q10 1MA1/2F, June 2022)**

**Q22.**

Jo is going to buy 15 rolls of wallpaper.

Here is some information about the cost of rolls of wallpaper from each of two shops.

<p><b>Chic Decor</b></p> <p>3 rolls for £36</p>
---

<p><b>Style Papers</b></p> <p>Pack of 5 rolls normal price £70</p> <p>12% off the normal price</p>
--

Jo wants to buy the 15 rolls of wallpaper as cheaply as possible.

Should Jo buy the wallpaper from Chic Decor or from Style Papers?  
You must show how you get your answer.

**(Total for question = 4 marks)**

**(Q25 1MA1/3F, June 2022)**

**Q23.**

Jo is going to buy 15 rolls of wallpaper.

Here is some information about the cost of rolls of wallpaper from each of two shops.

<p><b>Chic Decor</b></p> <p>3 rolls for £36</p>
---

<p><b>Style Papers</b></p> <p>Pack of 5 rolls normal price £70</p> <p>12% off the normal price</p>
--

Jo wants to buy the 15 rolls of wallpaper as cheaply as possible.

Should Jo buy the wallpaper from Chic Decor or from Style Papers?  
You must show how you get your answer.

**(Total for question = 4 marks)**

**(Q04 1MA1/3H, June 2022)**

**Q24.**

Myles writes down the distance readings from his car at the start and end of a journey.

Start of journey 

1	2	4	6	8
---	---	---	---	---

 miles

End of journey 

1	2	8	4	5
---	---	---	---	---

 miles

Myles knows that the cost of petrol for this journey is 13p per mile.

Work out the total cost of the petrol used for this journey.

Give your answer in pounds.

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£ .....

**(Total for question = 4 marks)**

**(Q07 1MA1/2F, Nov 2022)**

**Q25.**

A shop has two different special offers on milk.



75p

Pay for 2 bottles  
get 1 bottle free



£1.28

Pay for 1 bottle  
get 1 bottle half price

Which offer gives the better value for money?  
You must show how you get your answer.

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**(Total for question = 4 marks)**

**(Q13 1MA1/2F, Nov 2022)**

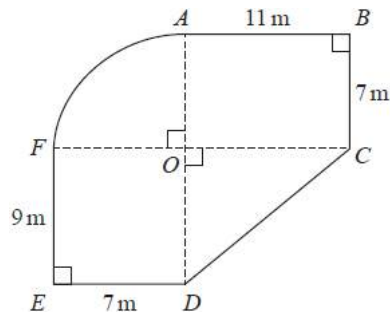
**Q26.**

The diagram shows a plan of Jason's garden.

$ABCO$  and  $DEFO$  are rectangles.

$CDO$  is a right-angled triangle.

$AFO$  is a sector of a circle with centre  $O$  and angle  $AOF = 90^\circ$



Jason is going to cover his garden with grass seed.

Each bag of grass seed covers  $14 \text{ m}^2$  of garden.

Each bag of grass seed costs £10.95

Work out how much it will cost Jason to buy all the bags of grass seed he needs.

£ .....

**(Total for question = 5 marks)**

**Q27.**

2.5 kg of onions and 2 kg of carrots cost a total of £2.36  
3 kg of carrots cost £1.74

Stuart has £2  
He wants to buy 4 kg of onions.

Does Stuart have enough money to buy 4 kg of onions?  
You must show how you get your answer.

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**(Total for question = 5 marks)**

**(Q15 1MA1/3F, Nov 2022)**

**Q28.**

208 bars of chocolate were sold from a shop.

$\frac{1}{4}$  of these bars of chocolate were large bars.

The rest of the bars of chocolate were small bars.

All the large bars of chocolate were sold for £1 each.  
All the small bars of chocolate were sold for 60p each.

Work out the total amount of money for which the 208 bars of chocolate were sold.  
Give your answer in pounds.

£ .....

**(Total for question = 3 marks)**

**(Q07 1MA1/3F, Nov 2022)**

**Q29.**

Fay is planning a trip to a theme park for 1 adult and 2 children.

These are the costs for the trip.

Total cost of petrol	£23
Tickets to theme park	£33 each adult £24.50 each child
Meals	£15 each adult £10 each child

Fay has £200 to spend.  
She pays all the costs.

How much money does she have left?

£ .....

**(Total for question = 4 marks)**

**(Q06 1MA1/1F, Nov 2022)**

**Q30.**

A shop sells jars of coffee.  
Each jar of coffee costs £4

Michael has £23

(a) Work out the greatest number of jars of coffee Michael can buy.

.....  
(2)

In a sale on Wednesday, jars of coffee are sold at half price.

Michael thinks that he can now buy exactly twice the number of jars of coffee for £23

(b) Is Michael correct?

You must give a reason for your answer.

.....  
.....  
.....

(1)

**(Total for question = 3 marks)**

**Q31.**

Max sees this special offer in a shop.

Buy one large plate and get one small plate for half the normal price.

The normal price of a large plate is £2  
The normal price of a small plate is 80p

Max wants to buy 6 large plates and 6 small plates using this offer.  
He has £15

Has Max got enough money?  
You must show how you get your answer.

**(Total for question = 4 marks)**

**(Q10 1MA1/1F, June 2023)**

**Q32.**

Lydia works for 4 hours.  
She is paid £50

How much is Lydia paid per hour?

£ .....

**(Total for question = 2 marks)**

**(Q06 1MA1/2F, Nov 2023)**

**Q33.**

Chloe is making scrunchies.

Chloe has a large number of hair bands.  
Each hair band costs 8p.

She buys 100 g of wool for £3

Chloe uses 1 hair band and 5 g of wool to make each scrunchy.  
She makes as many scrunchies as she can.

Work out the total cost of each scrunchy that she makes.  
Give your answer in pence.

..... p

**(Total for question = 4 marks)**

**(Q13 1MA1/1F, Nov 2023)**

**Q34.**

Ryan buys

4 cakes at £1.30 each  
2 identical tins of soup.

Ryan pays with a £10 note.

He gets £1.80 change.

How much does Ryan pay for each tin of soup?

£ .....

**(Total for question = 4 marks)**

**(Q06 1MA1/1F, June 2024)**

**Q35.**

Javid hires a car for 10 days.  
He pays £45 for each day.  
He also pays £30 for insurance.

Javid pays with ten £50 notes.  
Work out how much change he should get.

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£ .....

**(Total for question = 3 marks)**

**(Q06 1MA1/1F, Nov 2024)**

**Q36.**

Nina orders some items from a DIY shop.

Here is her bill.

Item	Quantity	Cost of each item	Total
Pack of screws	4	£29.99	£119.96
Tin of paint	2	£24.95	£.....
Wooden plank	.....	£7.75	£232.50
Delivery charge			£14.95
Total cost			£.....

(a) Complete all the missing information in the bill.

(3)

At the beginning of January, Jeff had £892.48 in his bank account.

During January, Jeff

- had £4.47 interest added to his account
- paid £240 into his account
- spent £365.50 from his account.

(b) How much money did Jeff have in his account at the end of January?

£ .....

(3)

**(Total for question = 6 marks)**

**(Q08 1MA1/3F, Nov 2024)**

**Q37.**

Harry works in a shop.

From Monday to Friday his basic rate of pay is £8 per hour.

On Saturday and Sunday, Harry's rate of pay is  $1\frac{1}{2}$  times his basic rate of pay.

The table shows the number of hours Harry worked each day last week.

Day	Mon	Tue	Wed	Thu	Fri	Sat	Sun
Hours worked	6	6	6	6	6	4	3

Work out Harry's total pay last week.

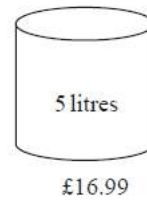
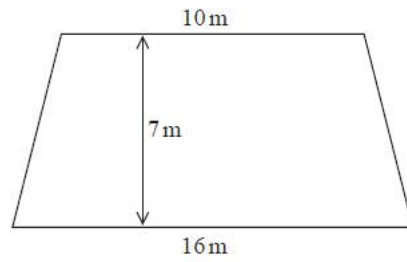
£.....

**(Total for question = 4 marks)**

**(Q14 1MA1/3F, Nov 2024)**

**Q38.**

The diagram shows a floor in the shape of a trapezium.



John is going to paint the floor.

Each 5 litre tin of paint costs £16.99  
1 litre of paint covers an area of  $2 \text{ m}^2$

John has £160 to spend on paint.

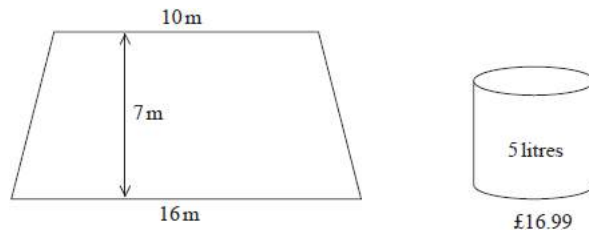
Has John got enough money to buy all the paint he needs?  
You must show how you get your answer.

**(Total for question = 5 marks)**

**(Q24 1MA1/2F, Nov 2018)**

**Q39.**

The diagram shows a floor in the shape of a trapezium.



John is going to paint the floor.

Each 5 litre tin of paint costs £16.99  
1 litre of paint covers an area of  $2 \text{ m}^2$

John has £160 to spend on paint.

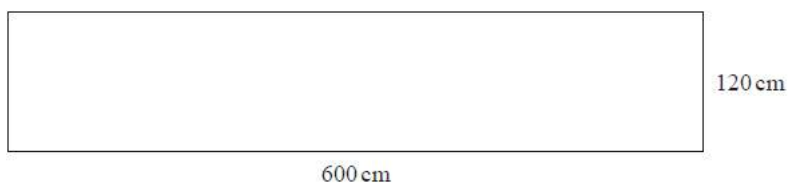
Has John got enough money to buy all the paint he needs?  
You must show how you get your answer.

**(Total for question = 5 marks)**

**(Q05 1MA1/2H, Nov 2018)**

**Q40.**

The diagram shows a rectangular garden path.



Wasim is going to cover the path with paving stones.  
Each paving stone is a square of side 30 cm.  
Each paving stone costs £2.50

Wasim has £220 to spend on paving stones.

Show that he has enough money to buy all the paving stones he needs.

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**(Total for question = 4 marks)**

**(Q18 1MA1/1F, June 2019)**

**Q41.**

Liz goes on holiday to South Africa.

Liz wants to change £850 into South African rand.  
She wants to get as many 200 rand notes as possible.

The exchange rate is £1 = 18.53 rand.

Work out the greatest number of 200 rand notes that Liz can get for £850

.....  
**(Total for question = 3 marks)**

**(Q21 1MA1/3F, June 2019)**

**Q42.**

120 boxes cost £6

270 bags cost £10

How much cheaper?

Give your answer in pence correct to 1 decimal place.

..... p

**(Total for question = 4 marks)**

**(Q14 1MA1/3F, June 2023)**

**Q43.**

Dylan buys 13 bicycle lights for £7.50 each.  
He pays with five £20 notes.

(a) How much change should Dylan get?

£ .....

(3)

The normal price of a bicycle is £120

In a sale, there is  $\frac{1}{5}$  off the normal price of the bicycle.

(b) Work out the price of the bicycle in the sale.

£ .....

(2)

**(Total for question = 5 marks)**

**(Q11 1MA1/3F, Nov 2019)**

**Q44.**

Trevor buys a boat.  
The cost of the boat is £14 200 plus VAT at 20%

Trevor pays a deposit of £5000  
He pays the rest of the cost in 10 equal payments.

Work out the amount of each of the 10 payments.

£ .....

**(Total for question = 4 marks)**

**(Q18 1MA1/3F, Nov 2018)**

**Q45.**

Last year Jo paid £245 for her car insurance.  
This year she has to pay £883 for her car insurance.

Work out the percentage increase in the cost of her car insurance.

..... %

**(Total for question = 3 marks)**

**(Q02 1MA1/3H, Nov 2018)**

**Q46.**

Last year Jo paid £245 for her car insurance.  
This year she has to pay £883 for her car insurance.

Work out the percentage increase in the cost of her car insurance.

..... %

**(Total for question = 3 marks)**

**(Q21 1MA1/3F, Nov 2018)**

**Q47.**

Marie invests £8000 in an account for one year.  
At the end of the year, interest is added to her account.

Marie pays tax on this interest at a rate of 20%  
She pays £28.80 tax.

Work out the percentage interest rate for the account.

..... %

**(Total for question = 3 marks)**

**(Q10 1MA1/3H, June 2019)**

**Q48.**

Sean pays £10 for 24 chocolate bars.

He sells all 24 chocolate bars for 50p each.

Work out Sean's percentage profit.

..... %

**(Total for question = 3 marks)**

**(Q05 1MA1/1H, Nov 2020)**

**Q49.**

Sean pays £10 for 24 chocolate bars.

He sells all 24 chocolate bars for 50p each.

Work out Sean's percentage profit.

..... %

**(Total for question = 3 marks)**

**(Q24 1MA1/1F, Nov 2020)**

**Q50.**

Jenny invests £3000 for 6 years at  $y\%$  simple interest per year.

At the end of the 6 years, Jenny has received a total of £450 in interest.

Work out the value of  $y$ .

$y = \dots\dots\dots$

**(Total for question = 3 marks)**

**(Q19 1MA1/3F, June 2023)**

**Q51.**

Steve is buying a car.  
The car costs £12 000

Steve pays 25% of the cost as a deposit.  
He pays the rest of the cost in 20 equal monthly payments.

How much is each monthly payment?

Â£  $\dots\dots\dots$

**(Total for question = 4 marks)**

**(Q15 1MA1/1F, Nov 2023)**

**Q52.**

The normal price of a mattress is reduced by 40% in a sale.

The price of the mattress in the sale is £660

Work out the normal price of the mattress.

£ .....

**(Total for question = 2 marks)**

**(Q08 1MA1/1H, Nov 2023)**

**Q53.**

180 tickets are sold for a concert.

60% of the tickets are child tickets.

The rest of the tickets are adult tickets.

The total cost of the 180 tickets is £1944

Each child ticket costs £8

Work out the cost of each adult ticket.

£ .....

**(Total for question = 4 marks)**

**(Q12 1MA1/2F, Nov 2024)**

**Q54.**

Last year Emma's car insurance cost £285

This year her car insurance costs 7% less.

(a) Work out the cost of Emma's car insurance this year.

£ .....  
(3)

Peter sells bikes.

Each month he is paid £1700 plus a bonus.

The bonus is 5% of the total value of the bikes he sells that month.

Last month Peter was paid £2100

(b) Work out the total value of the bikes he sold last month.

£ .....  
(3)

**(Total for question = 6 marks)**

**(Q17 1MA1/2F, Nov 2024)**

**Q55.**

In a sale, the normal prices are reduced by 15%

Amina buys a dress in the sale for £46.75

Work out the normal price of the dress.

£ .....

**(Total for question = 2 marks)**

**(Q10 1MA1/3H, Nov 2024)**

**Q56.**

2 pens cost £2.38

5 folders cost £5.60

Ben wants to buy 20 pens and 20 folders.

He only has £50

Does Ben have enough money to buy 20 pens and 20 folders?

You must show how you get your answer.

**(Total for question = 4 marks)**

**(Q08 1MA1/3F, Nov 2018)**

**Q57.**

<b>Choci bar</b> 200 g £3.50	<b>Choci bar</b> 360 g 7.20 Swiss francs
<b>London</b>	<b>Zurich</b>

In London, a 200 g Choci bar costs £3.50

In Zurich, a 360 g Choci bar costs 7.20 Swiss francs.

The exchange rate is £1 = 1.25 Swiss francs.

In which city is the Choci bar the better value for money, in London or in Zurich?

You must show how you get your answer.

**(Total for question = 3 marks)**

**(Q22 1MA1/2F, Nov 2024)**

**Q58.**

<b>Choci bar</b>	<b>Choci bar</b>
200 g	360 g
£3.50	7.20 Swiss francs
<b>London</b>	<b>Zurich</b>

In London, a 200 g Choci bar costs £3.50

In Zurich, a 360 g Choci bar costs 7.20 Swiss francs.

The exchange rate is £1 = 1.25 Swiss francs.

In which city is the Choci bar the better value for money, in London or in Zurich?

You must show how you get your answer.

**(Total for question = 3 marks)**

**(Q03 1MA1/2H, Nov 2024)**

**Q59.**

Robert makes 50 litres of green paint by mixing litres of yellow paint and litres of blue paint in the ratio 2 : 3

Yellow paint is sold in 5 litre tins.  
Each tin of yellow paint costs £26

Blue paint is sold in 10 litre tins.  
Each tin of blue paint costs £48

Robert sells all the green paint he makes in 10 litre tins.  
He sells each tin of green paint for £66.96

Work out Robert's percentage profit on each tin of green paint he sells.

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..... %

**(Total for question = 5 marks)**

**(Q10 1MA1/2H, Nov 2018)**

**Q60.**

Pens and pencils are sold in a shop.

12 pencils cost £1.80

The ratio of the cost of a pen to the cost of a pencil is 7 : 3

Work out the cost of 5 pens.

Mathvault.io Solutions

£ .....

**(Total for question = 4 marks)**

**(Q20 1MA1/2F, Nov 2020)**

**Q61.**

Andrew invests £4500 in a savings account for 2 years.  
The account pays compound interest at a rate of 3.4% per year.

Calculate how much Andrew has in this savings account at the end of the 2 years.

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£ .....

**(Total for question = 2 marks)**

**(Q03 1MA1/2H, Nov 2023)**

**Q62.**

In Spain, Sam pays 27 euros for 18 litres of petrol.

In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

$$1 \text{ euro} = \text{£}0.85$$

$$4.5 \text{ litres} = 1 \text{ gallon}$$

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?

You must show how you get your answer.

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**(Total for question = 4 marks)**

**(Q27 1MA1/2F, June 2022)**

**Q63.**

In Spain, Sam pays 27 euros for 18 litres of petrol.

In Wales, Leo pays £40.80 for 8 gallons of the same type of petrol.

1 euro = £0.85

4.5 litres = 1 gallon

Sam thinks that petrol is cheaper in Spain than in Wales.

Is Sam correct?

You must show how you get your answer.

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**(Total for question = 4 marks)**

**(Q07 1MA1/2H, June 2022)**

**Q64.**

Blake works 32 hours a week in the UK.  
She is paid  $\text{£}473.28$  per week.

Blake applies for a job in Australia.  
The rate of pay is 26.40 Australian dollars per hour.

$\text{£}1 = 1.796$  Australian dollars

Blake thinks the rate of pay in Australia is greater than the rate of pay in the UK.

Is Blake correct?  
You must show how you get your answer.

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**(Total for question = 3 marks)**

**(Q17 1MA1/3F, Nov 2023)**

**Q65.**

Asha buys 180 cans of cola.

The cans are sold in packs.

There are 12 cans in each pack.

Each pack costs £3

(a) Work out the total cost of the cola Asha buys.

£ .....

(3)

Ethan buys a box of 24 cans of lemonade for £7

There are 330 ml of lemonade in each can.

(b) Work out the cost of 100 ml of lemonade.

Give your answer correct to the nearest penny.

..... p

(3)

**(Total for question = 6 marks)**

**(Q18 1MA1/2F, June 2023)**

**Q66.**

In a shop, a TV has a normal price of £500  
The shop has a sale.

On Monday, the normal price of the TV is reduced by  $\frac{1}{10}$  to give the sale price.

On Tuesday, the sale price of the TV is reduced by 20%

Chris wants to buy the TV.  
He has £400 to spend on the TV.

Does Chris have enough money to buy the TV on Tuesday?  
You must show how you get your answer.

Mathvault.io Solutions

**(Total for question = 5 marks)**

**(Q17 1MA1/1F, Nov 2020)**

**Q67.**

Adam, Linda and Rytis share an amount of money.

Linda gets three times as much money as Rytis gets.  
Linda gets half as much money as Adam gets.

What fraction of the amount of money does Linda get?

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.....  
**(Total for question = 2 marks)**

**(Q19 1MA1/2F, Nov 2020)**

**Q68.**

Nimra buys a 3 kg box of sweets for £17.60

She puts the sweets into bags to sell.  
Each bag contains 150 g of sweets.

Nimra fills as many bags as possible.  
She will sell each bag for the same price.

Nimra wants to make a profit of at least 35%

Assuming she sells all the bags,  
what is the lowest price Nimra should charge for each bag?

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£ .....

**(Total for question = 5 marks)**

**(Q19 1MA1/2F, June 2022)**

**Q69.**

A new phone cost £679

The value of the phone decreases at a rate of 4% per year.

Work out the value of the phone at the end of 3 years.

£ .....

**(Total for question = 3 marks)**

**(Q26 1MA1/2F, June 2022)**

**Q70.**

A new phone cost £679

The value of the phone decreases at a rate of 4% per year.

Work out the value of the phone at the end of 3 years.

£ .....

**(Total for question = 3 marks)**

**(Q06 1MA1/2H, June 2022)**

**Q71.**

The price of a holiday increases by 20%  
This 20% increase adds £240 to the price of the holiday.

Work out the price of the holiday before the increase.

£ .....

**(Total for question = 2 marks)**

**(Q26 1MA1/1F, June 2023)**

**Q72.**

The price of a holiday increases by 20%  
This 20% increase adds £240 to the price of the holiday.

Work out the price of the holiday before the increase.

£ .....

**(Total for question = 2 marks)**

**(Q07 1MA1/1H, June 2023)**

**Q73.**

Karen is organising a party for a charity.

She spends

- £100 on food
- £120 on a hall
- £80 on a DJ.

Karen sells 54 tickets for the party.

Each ticket costs £7.50

Work out the percentage profit Karen makes for the charity.

..... %

**(Total for question = 4 marks)**

**(Q23 1MA1/2F, Nov 2023)**

**Q74.**

Karen is organising a party for a charity.

She spends

- £100 on food
- £120 on a hall
- £80 on a DJ.

Karen sells 54 tickets for the party.

Each ticket costs £7.50

Work out the percentage profit Karen makes for the charity.

..... %

**(Total for question = 4 marks)**

**(Q02 1MA1/2H, Nov 2023)**

**Q75.**

Mrs Simpson organised a school trip for 66 children.

The total cost of the trip was £1800

The school paid 56% of the total cost.

The rest of the total cost was divided equally between the 66 children.

Work out how much money each child paid.

£ .....

**(Total for question = 3 marks)**

**(Q18 1MA1/2F, June 2024)**

**Q76.**

At the start of 2022 Kim invested some money in a savings account.  
The account paid 3.5% compound interest each year.

At the end of 2022

interest was added to the account then Kim took £750 from the account.

At the end of 2023

interest was added to the account then Kim took £1000 from the account.

There was then £2937.14 in the account.

Work out how much money Kim invested at the start of 2022  
You must show all your working.

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£ .....

**(Total for question = 4 marks)**

**(Q14 1MA1/3H, June 2024)**

**Q77.**

Batteries are sold in packs of 4, in packs of 8 and in packs of 12



£1.80



£3.20



£6.00

A pack of 4 batteries costs £1.80

A pack of 8 batteries costs £3.20

A pack of 12 batteries costs £6.00

Which pack gives the best value for money?

You must show how you get your answer.

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**(Total for question = 3 marks)**

**(Q16 1MA1/1F, June 2024)**

**Q78.**

The ratio of Marta's hourly pay to Khalid's hourly pay is 6 : 5

Both Marta and Khalid get an increase of £1.50 in their hourly pay.

The ratio of Marta's hourly pay to Khalid's hourly pay after this increase is 13 : 11

Work out the hourly pay before the increase for Marta and for Khalid.

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Marta £ .....

Khalid £ .....

**(Total for question = 4 marks)**

**(Q15 1MA1/2H, June 2022)**

**Q79.**

Chris, Debbie and Errol share some money in the ratio 3 : 4 : 2  
Debbie gets £120

Chris then gives some of his share to Debbie and some of his share to Errol.  
The money that Chris, Debbie and Errol each have is now in the ratio 2 : 5 : 3

How much money did Chris give to Errol?

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£ .....

**(Total for question = 4 marks)**

**(Q26 1MA1/2F, Nov 2023)**

**Q80.**

Chris, Debbie and Errol share some money in the ratio 3 : 4 : 2  
Debbie gets £120

Chris then gives some of his share to Debbie and some of his share to Errol.  
The money that Chris, Debbie and Errol each have is now in the ratio 2 : 5 : 3

How much money did Chris give to Errol?

Mathvault.io Solutions

£ .....

**(Total for question = 4 marks)**

**(Q05 1MA1/2H, Nov 2023)**

**Q81.**

Chanda buys a necklace for £120  
She sells the necklace for £135

Work out her percentage profit.

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..... %

**(Total for question = 3 marks)**

**(Q08 1MA1/2H, Nov 2022)**

**Q82.**

Aaliyah bought a car.

In the first year after she bought the car, its value depreciated at a rate of 23% per annum.

In the second year after she bought the car, its value depreciated at a rate of 19% per annum.

At the end of the second year the car was worth £10 914.75

What was the value of the car when Aaliyah bought it?

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£ .....

**(Total for question = 3 marks)**

**(Q10 1MA1/2H, Nov 2022)**

**Q83.**

Robyn buys a total of 240 pens and pencils, where

$$\text{number of pens} : \text{number of pencils} = 3 : 5$$

Robyn pays 9p for each pen.  
She sells each pen for 11p.

Robyn pays 6p for each pencil.  
She sells each pencil for 10p.

Robyn sells all of the pens and pencils.

Work out Robyn's percentage profit.  
Give your answer correct to 1 decimal place.  
You must show all your working.

Mathvault.io Solutions

.....%

**(Total for question = 5 marks)**

**(Q21 1MA1/3F, Nov 2024)**

**Q84.**

Robyn buys a total of 240 pens and pencils, where

$$\text{number of pens} : \text{number of pencils} = 3 : 5$$

Robyn pays 9p for each pen.  
She sells each pen for 11p.

Robyn pays 6p for each pencil.  
She sells each pencil for 10p.

Robyn sells all of the pens and pencils.

Work out Robyn's percentage profit.  
Give your answer correct to 1 decimal place.  
You must show all your working.

Mathvault.io Solutions

..... %

**(Total for question = 5 marks)**

**(Q05 1MA1/3H, Nov 2024)**

**Q85.**

Tamsin buys a house with a value of £150 000  
The value of Tamsin's house increases by 4% each year.

Rachel buys a house with a value of £160 000  
The value of Rachel's house increases by 1.5% each year.

At the end of 2 years, whose house has the greater value?  
You must show how you get your answer.

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**(Total for question = 4 marks)**

**(Q27 1MA1/2F, June 2023)**

**Q86.**

Tamsin buys a house with a value of £150 000

The value of Tamsin's house increases by 4% each year.

Rachel buys a house with a value of £160 000

The value of Rachel's house increases by 1.5% each year.

At the end of 2 years, whose house has the greater value?

You must show how you get your answer.

Mathvault.io Solutions

**(Total for question = 4 marks)**

**(Q08 1MA1/2H, June 2023)**

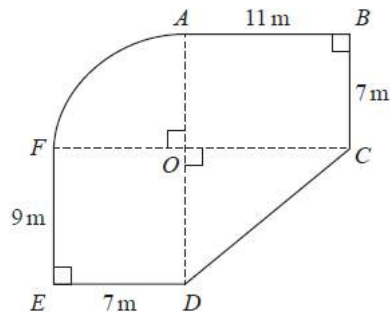
**Q87.**

The diagram shows a plan of Jason's garden.

$ABCO$  and  $DEFO$  are rectangles.

$CDO$  is a right-angled triangle.

$AFO$  is a sector of a circle with centre  $O$  and angle  $AOF = 90^\circ$



Jason is going to cover his garden with grass seed.

Each bag of grass seed covers  $14 \text{ m}^2$  of garden.

Each bag of grass seed costs £10.95

Work out how much it will cost Jason to buy all the bags of grass seed he needs.

£ .....

**(Total for question = 5 marks)**

**(Q04 1MA1/2H, Nov 2022)**

**Q88.**

3 kg of carrots cost £1.80

2 kg of carrots and 5 kg of potatoes cost a total of £3.45

Work out the total cost of 4 kg of carrots and 2 kg of potatoes.  
You must show all your working.

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£ .....

**(Total for question = 4 marks)**

**(Q14 1MA1/1F, Nov 2021)**

**Q89.**

Mr Page uses oil to heat his home.

At the beginning of November there were 1000 litres of oil in his oil tank.

Mr Page bought enough oil to fill the tank completely.

He paid 50p per litre for this oil.

He paid a total amount of £750

At the end of February Mr Page had 600 litres of oil in the tank.

He bought enough oil to fill the tank completely.

The cost of oil had increased by 4%.

Work out the total amount Mr Page paid for the oil he bought in February.

£ .....

**(Total for question = 5 marks)**

**(Q15 1MA1/2F, Nov 2017)**

**Q90.**

Joanne wants to buy a dishwasher.

The dishwasher costs £372

Joanne will pay a deposit of £36

She will then pay the rest of the cost in 4 equal monthly payments.

How much is each monthly payment?

£ .....

**(Total for question = 2 marks)**

**(Q08 1MA1/3F, June 2017)**

**Q91.**

In London, 1 litre of petrol costs 108.9p

In New York, 1 US gallon of petrol costs \$2.83

1 US gallon = 3.785 litres

£1 = \$1.46

In which city is petrol better value for money, London or New York?

You must show your working.

**(Total for question = 3 marks)**

**(Q02 1MA1/3H, Nov 2017)**

**Q92.**

In London, 1 litre of petrol costs 108.9p

In New York, 1 US gallon of petrol costs \$2.83

1 US gallon = 3.785 litres

£1 = \$1.46

In which city is petrol better value for money, London or New York?

You must show your working.

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**(Total for question = 3 marks)**

**(Q20 1MA1/3F, Nov 2017)**

**Q93.**

Sean works for a company.  
His normal rate of pay is £12 per hour.

When Sean works more than 8 hours a day, he is paid overtime for each hour he works more than 8 hours.

Sean's rate of overtime pay per hour is  $1\frac{1}{4}$  times his normal rate of pay per hour.

On Monday Sean worked for 10 hours.

Work out the total amount of money Sean earned on Monday.

£ .....

**(Total for question = 4 marks)**

**(Q09 1MA1/1F, June 2017)**

**Q94.**

Suha is going to buy 150 envelopes.

Here is some information about the cost of envelopes in two shops.

<p><b>Letters2send</b> Pack of 25 envelopes for £3.49</p>
---

<p><b>Stationery World</b> Pack of 10 envelopes for £2.10 Buy 2 packs get 1 pack free</p>
---

Suha wants to buy the envelopes as cheaply as possible.

Which shop should Suha buy the 150 envelopes from?  
You must show how you get your answer.

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**(Total for question = 4 marks)**

**(Q10 1MA1/2F, June 2017)**

**Q95.**

Fahima buys

2 packets of bread rolls costing £1.50 for each packet

1 bottle of ketchup costing £1.60

3 packets of sausages

Fahima pays with a £10 note.

She gets 30p change.

Fahima works out that one packet of sausages costs £2.30

Is Fahima right?

You must show how you get your answer.

Mathvault.io Solutions

**(Total for question = 3 marks)**

**(Q07 1MA1/1F, June 2017)**

**Q96.**

Andy went on holiday to Canada.  
His flights cost a total of £1500

Andy stayed for 14 nights.  
His hotel room cost \$196 per night.

Andy used wifi for 12 days.  
Wifi cost \$5 per day.

The exchange rate was \$1.90 to £1

- (a) Work out the total cost of the flights, the hotel room and Wi-Fi.  
Give your answer in pounds.

£ .....

(5)

- (b) If there were fewer dollars to £1, what effect would this have on the total cost, in pounds, of Andy's holiday?

.....

(1)

**(Total for question = 6 marks)**

**(Q14 1MA1/3F, June 2017)**

**Q97.**

Jack's driving school has two offers.

<b>Offer 1</b>	<b>Offer 2</b>
First driving lesson free	All driving lessons
All other driving lessons normal price	5% off the normal price

The normal price of a driving lesson is £24

Douglas is going to have 12 driving lessons.

Which is the cheaper offer for 12 driving lessons, Offer 1 or Offer 2?

You must show how you get your answer.

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**(Total for question = 3 marks)**

**(Q11 1MA1/3F, Nov 2017)**

**Q98.**

Yesterday it took 5 cleaners  $4\frac{1}{2}$  hours to clean all the rooms in a hotel.

There are only 3 cleaners to clean all the rooms in the hotel today.

Each cleaner is paid £8.20 for each hour or part of an hour they work.

How much will each cleaner be paid today?

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£ .....

**(Total for question = 3 marks)**

**(Q09 1MA1/2H, Nov 2017)**

**Q99.**

Harry, Regan and Kelan share £450 in the ratio 2 : 5 : 3

How much money does Kelan get?

£ .....

**(Total for question = 2 marks)**

**(Q18 1MA1/1F, Nov 2017)**

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