GCSE MATHEMATICS

WORKED SOLUTIONS

Money

Non-calculator exam questions

Foundation tier

Please write clearly in block capitals.

Name

Class **Teacher**

Time allowed: 55 minutes

Materials

For this booklet you need a black pen, a pencil, a ruler and a rubber.

Instructions

- Use black ink or black ballpoint pen. Draw diagrams in pencil.
- Fill in the boxes at the top of this page.
- Answer all questions in the spaces provided.
- You must not use a calculator.
- Do all rough work in this booklet. Cross through any work you do not want marked.

Information

- The marks for each question are shown in brackets.
- The maximum mark for this booklet is 50.

Advice

- Read each question carefully.
- In all calculations, show clearly how you work out your answer.

For teacher's use

Q	Mark	Q	Mark
1	2	10	3
2	3	11	2
3	3	12	3
4	2	13	3
5	3	14	4
6	3	15	3
7	2	16	3
8	3	17	4
9	4		
TOTAL		50	

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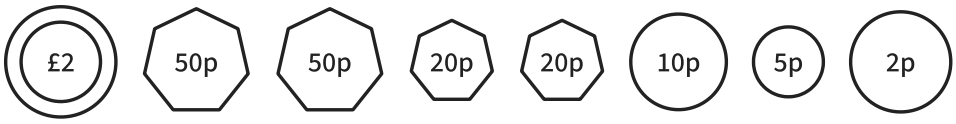
1 Here are the coins in Ffion's purse.



(a) Work out the total amount of money in the purse.
Give your answer in pounds.

200 + 100 + 40 + 10 + 5 + 2 = 357p

Answer £ 3.57 (1)

[1 mark]

(b) Ffion buys a drink that costs £1.35
She pays the exact amount with coins from her purse.
Write down the coins she uses.

Answer 50p + 50p + 20p + 10p + 5p (1)

[1 mark]

2 Kemal buys a coat that costs £52.35
He pays with a £100 note.
The shop gives him his change using the fewest possible notes and coins.

Complete the table to show how many of each note and coin Kemal gets.

Note or coin	£20	£10	£5	£2	£1	50p	20p	10p	5p	2p	1p
Number	2	0	1	1	0	1	0	1	1	0	0

(1)

100 – 52.35 (1)
= £47.65 (1)

[3 marks]

3 Here is the price list at a bike repair stall.

Item	Price
Inner tube	£4.85
Puncture repair kit	£3.20
Bike light	£6.40
Bell	£2.95

Nadia buys 2 inner tubes and a bike light.

(a) Work out the total cost.

$2 \times 4.85 = 9.70$ (1)

$9.70 + 6.40$

Answer £ 16.10 (1)

[2 marks]

(b) Nadia pays with a £20 note.
How much change should she get?

$20 - 16.10$

Answer £ 3.90 (1)

[1 mark]

4 Packets of seeds cost 65p each.
Tamsin has £5

(a) What is the greatest number of packets of seeds she can buy?

$65 \times 7 = 455$, $65 \times 8 = 520$

Answer 7 (1)

[1 mark]

(b) How much money will she have left?

$500 - 455$

Answer 45 (1) p

[1 mark]

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5 Ellis and Priya each buy lunch.
Ellis pays with a £20 note and gets £6.35 change.
Priya pays with a £10 note and gets £1.70 change.

Who spent more on lunch, and by how much?
You must show your working.

Ellis: 20 – 6.35 = £13.65 (1)
Priya: 10 – 1.70 = £8.30 (1)
13.65 – 8.30 = £5.35

Answer Ellis, by £5.35 (1)

[3 marks]

6 Callum buys some things at a garden centre. Here is his bill.

Item	Number	Price each	Cost
Bird feeder	2	£7.45	£14.90
Bag of bird seed	3	£2.65	£7.95
Pack of plant labels	4	£1.80	£6.20
		Total	**£29.05**

One of the costs for the three items is wrong.

Work out the correct total for the bill.

2 × 7.45 = 14.90 ✓, 3 × 2.65 = 7.95 ✓
4 × 1.80 = 7.20, not 6.20 (1)
14.90 + 7.95 + 7.20 (1)

Answer £ 30.05 (1)

[3 marks]

7 Joel buys 4 sandwiches and a smoothie.
The sandwiches all cost the same.
The smoothie costs £2.95
He pays £13.75 altogether.

Work out the cost of one sandwich.

13.75 – 2.95 = 10.80 (1)
10.80 ÷ 4

Answer £ 2.70 (1)

[2 marks]

8 A bike hire scheme has two ways to pay.

Monthly	Yearly
£9.95 each month	£99 for 12 months

Ola uses the scheme for a whole year.

How much does Ola save if she pays yearly instead of monthly?

10 × 12 – 0.05 × 12 = 120 – 0.60
= £119.40 (1)
119.40 – 99 (1)

Answer £ 20.40 (1)

[3 marks]

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9 Here is part of Grace's bank statement.

Date	Description	Money in (£)	Money out (£)	Balance (£)
1 March	Start			84.50
4 March	Phone bill		23.75	60.75
9 March	Wages	186.40		247.15
12 March	Rent		275.00	−27.85

(a) Complete the Balance column.

84.50 − 23.75 = 60.75 (1)

60.75 + 186.40 = 247.15 (1)

247.15 − 275.00 = −27.85 (1)

[3 marks]

(b) What does the balance on 12 March tell you about Grace's account?

Answer Overdrawn by £27.85 (1)

[1 mark]

10 Six friends rent a cabin for a weekend.
The cabin costs £486 and there is a cleaning fee of £39
They share these costs equally.

Two of the friends also hire a kayak for £35
These two friends share the cost of the kayak equally.

How much does each of these two friends pay altogether?

(486 + 39) ÷ 6 = 525 ÷ 6 = £87.50 (1)

35 ÷ 2 = £17.50 (1)

87.50 + 17.50

Answer £ 105.00 (1)

[3 marks]

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11 Mr Okafor has £100 to spend on prizes for sports day.
He wants to buy 21 medals that cost £3.95 each.

Use estimation to show that he has enough money.

$21 \approx 20$, $3.95 \approx 4$

$20 \times 4 = £80$ (1)

£80 is less than £100, so he has enough. (1)

[2 marks]

12 An online shop charges £3.95 for delivery on orders under £40
Delivery is free on orders of £40 or more.

Mia's order comes to £36.20
If she adds a phone case that costs £4.50, her delivery is free.

(a) How much does Mia pay if she does not add the phone case?

$36.20 + 3.95$

Answer £ 40.15 (1)

[1 mark]

(b) How much more does Mia pay altogether if she adds the phone case?

$36.20 + 4.50 = 40.70$

$40.70 - 40.15$ (1)

Answer 55p (1)

[2 marks]

13 A charity jar contains only 20p coins and 50p coins.
There are the same number of 20p coins as 50p coins.
The total amount in the jar is £14.70

How many coins are in the jar altogether?

20 + 50 = 70p for one of each (1)
1470 ÷ 70 = 21 of each (1)
21 × 2

Answer 42 (1)

[3 marks]

14 A stationery shop has these offers.

Notebooks	Gel pens
£2.60 each Buy 3 for the price of 2	90p each Buy one, get a second half price

Theo buys 7 notebooks and 4 gel pens.

Work out the total cost.

7 notebooks: pay for 2 + 2 + 1 = 5
5 × 2.60 = £13.00 (1)
0.90 + 0.45 = 1.35, × 2 = £2.70 (1)
13.00 + 2.70 (1)

Answer £ 15.70 (1)

[4 marks]

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15 Here are the ticket prices at a farm park.

Ticket	Price
Adult	£8.75
Child	£5.40
Family (2 adults and 2 children)	£24.00

A group of 3 adults and 4 children visit the farm park.

Work out the least amount the group can pay for their tickets.
You must show your working.

No family: $3 \times 8.75 + 4 \times 5.40 = £47.85$ (1)
1 family: $24 + 8.75 + 2 \times 5.40 = £43.55$ (1)
2 families: $2 \times 24 = £48$

Answer £ 43.55 (1)

[3 marks]

16 A climbing wall charges £6.50 for each visit.
It also sells a monthly pass for £45
The pass covers any number of visits in one month.

What is the least number of visits in a month for the pass to be cheaper than paying for each visit?
You must show your working.

6 visits: $6 \times 6.50 = £39$ (1)
7 visits: $7 \times 6.50 = £45.50$
£39 is less than £45, £45.50 is more (1)

Answer 7 (1)

[3 marks]

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17 Two shops print photos.

Shop A	Shop B
18p for each photo	£2.40 for the order plus 12p for each photo

(a) Ravi wants 25 photos printed.
Which shop is cheaper for Ravi, and by how much?

A: 25 × 0.18 = £4.50
B: 2.40 + 25 × 0.12 = £5.40 (1)
5.40 – 4.50 = 90p

Answer Shop A, by 90p (1)

[2 marks]

(b) For how many photos do both shops charge the same amount?

18 – 12 = 6p more each photo at A
240 ÷ 6 (1)
A: £7.20, B: £7.20

Answer 40 (1)

[2 marks]

END OF QUESTIONS

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The Maths Habit