Name: _____

GCSE (1 - 9) Four Operations	Solutions:

These questions are compiled from *released* Pearson Edexcel GCSE maths exam papers
They contain exam questions from up until the ***Summer 2023*** exam series
More recent exam papers do exist but are withheld for mock exams
As new exam papers are released these worksheets will gradually be updated
The ***most current*** version of these worksheets will always be available at: kennethstafford.co.uk

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1

£42 is shared equally between 3 friends.

How much does each friend get?

£.....

(Total for Question 7 is 2 marks)

[Edexcel, GCSE, Autumn 2021, Paper 1F, Q7]

2

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.

(Total for Question 9 is 3 marks)

[Edexcel, GCSE, Autumn 2021, Paper 1F, Q9]

3

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.

£.....

(Total for Question 14 is 4 marks)

[Edexcel, GCSE, Autumn 2021, Paper 1F, Q14]

4

A baker has three bags of flour, **A**, **B** and **C**.

Bag **A** and bag **B** contain the same amount of flour.
Bag **C** contains 940 g of flour.

In the three bags, there is a total of 2500 g of flour.

Work out the amount of flour in bag **A**.

..... g

(Total for Question 7 is 3 marks)

[Edexcel, GCSE, Autumn 2021, Paper 2F, Q7]

5

Rachel, Samina and Tom share £600 between them.

Rachel gets $\frac{2}{5}$ of the £600

Samina gets $\frac{1}{4}$ of the money that is left over.

Tom gets the rest of the money.

Tom says,

"I would have got more money if we had shared the £600 equally between us."

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

(Total for Question 19 is 4 marks)

[Edexcel, GCSE, Autumn 2021, Paper 2F, Q19]

6

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 8 is 3 marks)

[Edexcel, GCSE, Autumn 2021, Paper 3F, Q8]

7

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 10 is 3 marks)

[Edexcel, GCSE, Autumn 2021, Paper 3F, Q10]

8

Jenny has 12 marbles.

$\frac{1}{4}$ of these 12 marbles are large.

The rest of these 12 marbles are small.

Each large marble has a weight of 70 grams.
Each small marble has a weight of 50 grams.

Work out the total weight of the 12 marbles.

..... grams

(Total for Question 10 is 4 marks)

[Edexcel, GCSE, Autumn 2020, Paper 1F, Q10]

9

A machine fills bags with sweets.

There are 4275 sweets.
There are 28 sweets in each full bag.

The machine fills as many bags as possible.

How many sweets are left?

.....

(Total for Question 13 is 3 marks)

[Edexcel, GCSE, Autumn 2020, Paper 2F, Q13]

10

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.

£ .....

(Total for Question 8 is 3 marks)

[Edexcel, GCSE, Autumn 2020, Paper 3F, Q8]

11

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 12 is 5 marks)

[Edexcel, GCSE, Autumn 2019, Paper 1F, Q12]

12

Work out 23×15

.....

(Total for Question 14 is 2 marks)

[Edexcel, GCSE, Autumn 2019, Paper 1F, Q14]

13

There are 14 rows of seats in a cinema.
There are 15 seats in each row.

A film was shown in the cinema on Saturday.
Each ticket for the film cost £6.50

The tickets that were sold cost a total of £1274

How many tickets were **not** sold?

.....

(Total for Question 6 is 3 marks)

[Edexcel, GCSE, Autumn 2019, Paper 2F, Q6]

14

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 11 is 5 marks)

[Edexcel, GCSE, Autumn 2019, Paper 3F, Q11]

15

Cornflakes are sold in two sizes of box.

Size of box	Weight of cornflakes
small	450 g
large	750 g

Rae buys 3 small boxes of cornflakes and some large boxes of cornflakes.
In total she buys 5850 g of cornflakes.

Work out the number of large boxes of cornflakes Rae buys.

.....

(Total for Question 12 is 3 marks)

[Edexcel, GCSE, Autumn 2019, Paper 3F, Q12]

16

Work out $10 \times (3 + 5)$

.....

(Total for Question 3 is 1 mark)

[Edexcel, GCSE, Summer 2019, Paper 1F, Q3]

17

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 6 is 4 marks)

[Edexcel, GCSE, Summer 2019, Paper 1F, Q6]

18

Work out 74×58

.....

(Total for Question 11 is 2 marks)

[Edexcel, GCSE, Summer 2019, Paper 1F, Q11]

19

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.

(Total for Question 6 is 3 marks)

[Edexcel, GCSE, Summer 2019, Paper 2F, Q6]

20

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 11 is 4 marks)

[Edexcel, GCSE, Summer 2019, Paper 3F, Q11]

21

(a) Work out $3 \times 5 + 7$

.....

(1)

(b) Work out 2^3

.....

(1)

(c) Write brackets ( ) in this statement to make it correct.

$$7 \times 2 + 3 = 35$$

(1)

(Total for Question 5 is 3 marks)

[Edexcel, GCSE, Autumn 2018, Paper 1F, Q5]

22

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 8 is 4 marks)

[Edexcel, GCSE, Autumn 2018, Paper 3F, Q8]

23

Tim and three friends go on holiday together for a week.

The 4 friends will share the costs of the holiday equally.

Here are the costs of the holiday.

£1280 for 4 return plane tickets
£640 for the villa
£220 for hire of a car for the week

Work out how much Tim has to pay for his share of the costs.

£ .....

(Total for Question 10 is 3 marks)

[Edexcel, GCSE, Summer 2018, Paper 1F, Q10]

24

Work out $2 + 7 \times 10$

.....

(Total for Question 2 is 1 mark)

[Edexcel, GCSE, Autumn 2017, Paper 1F, Q13]

25

Jacqui wants to work out $3480 \div 5$

She knows that $3480 \div 10 = 348$

Jacqui writes $3480 \div 5 = 174$

because $10 \div 5 = 2$

and $348 \div 2 = 174$

What mistake did Jacqui make in her method?

.....

.....

(Total for Question 9 is 1 mark)

[Edexcel, GCSE, Autumn 2017, Paper 1F, Q21]

26

David has twice as many cousins as Becky.
Becky has twice as many cousins as Nishat.

Nishat has 6 cousins.

How many cousins does David have?

.....

(Total for Question 7 is 2 marks)

[Edexcel, GCSE, Autumn 2017, Paper 3F, Q7]

27

Bronwin works in a restaurant.

The table gives her rates of pay.

Day	Rate of pay
Monday to Friday	£8.40 per hour
Weekend	£11.20 per hour

Bronwin worked for a total of 20 hours last week.
She worked 8 of these 20 hours at the weekend.

Show that Bronwin was paid less than £200 last week.

(Total for Question 10 is 3 marks)

[Edexcel, GCSE, Autumn 2017, Paper 3F, Q10]

28

Jenny is asked to find the value of $12 - 2 \times 4$

Here is her working.

$$12 - 2 \times 4 = 10 \times 4 = 40$$

Jenny's answer is wrong.

(a) Explain what Jenny has done wrong.

.....

.....

(1)

Rehan is asked to find the range of the numbers 3 1 8 7 5

Here is his working.

$$\text{Range} = 5 - 3 = 2$$

This is wrong.

(b) Explain why.

.....

.....

(1)

(Total for Question 15 is 2 marks)

[Edexcel, GCSE, Autumn 2017, Paper 3F, Q15]

29

Work out $2 + 7 \times 10$

.....

(Total for Question 2 is 1 mark)

[Edexcel, GCSE, Autumn 2017, Paper 1F, Q2]

30

Jacqui wants to work out $3480 \div 5$

She knows that $3480 \div 10 = 348$

Jacqui writes $3480 \div 5 = 174$

because $10 \div 5 = 2$

and $348 \div 2 = 174$

What mistake did Jacqui make in her method?

.....

.....

(Total for Question 9 is 1 mark)

[Edexcel, GCSE, Autumn 2017, Paper 1F, Q9]

31

Ken buys some fruit.

He buys apples, bananas, peaches and oranges.
Ken buys

4 apples	weighing 125 g each
2 bananas	weighing 170 g each
3 peaches	weighing 135 g each

Each orange has a weight of 90 g.

The fruit has a total weight of 1.785 kg.

(a) Work out how many oranges Ken buys.

.....

(3)

Jane wants to buy 15 tomatoes.
She asks for 1 kg of tomatoes at a shop.
Jane assumes that each tomato has a weight of 75 g.

(b) (i) If Jane's assumption is correct, will she get 15 tomatoes?
You must show how you get your answer.

(2)

(ii) If Jane's assumption is **not** correct, could she get 15 tomatoes?
Justify your answer.

.....

.....

(1)

(Total for Question 4 is 6 marks)

[Edexcel, GCSE, Autumn 2017, Paper 2F, Q4]

32

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 13 is 3 marks)

[Edexcel, GCSE, Autumn 2017, Paper 2F, Q13]

33

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 15 is 5 marks)

[Edexcel, GCSE, Autumn 2017, Paper 2F, Q15]

34

The table gives information about the prices of cinema tickets.

Cinema ticket	Price
adult ticket	£7.80
child ticket	£5.80
family ticket (for 4 people)	£24.30

Mr Edwards and his 3 children go to the cinema.

It is cheaper for Mr Edwards to buy 1 family ticket rather than 4 separate tickets.

(a) How much cheaper?

.....

(3)

The film starts at 6.45 pm.
The film lasts 102 minutes.

(b) What time does the film finish?

.....

(2)

(Total for Question 4 is 5 marks)

[Edexcel, GCSE, Autumn 2017, Paper 3F, Q4]

35

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.

(Total for Question 7 is 3 marks)

[Edexcel, GCSE, Summer 2017, Paper 1F, Q7]

36

5 tins of soup have a total weight of 1750 grams.
4 tins of soup and 3 packets of soup have a total weight of 1490 grams.

Work out the total weight of 3 tins of soup and 2 packets of soup.

..... grams

(Total for Question 17 is 4 marks)

[Edexcel, GCSE, Summer 2017, Paper 1F, Q17]

37

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 8 is 2 marks)

[Edexcel, GCSE, Summer 2017, Paper 3F, Q8]

38

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 wifi.
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 14 is 6 marks)

[Edexcel, GCSE, Summer 2017, Paper 3F, Q14]

39

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 10 is 4 marks)

[Edexcel, GCSE, Summer 2023, Paper 1F, Q10]

40

Jonny wants to know how much coffee he will need for 800 people at a meeting.

Each person who drinks coffee will drink 2 cups of coffee.
10.6 g of coffee is needed for each cup of coffee.

Jonny assumes 68% of the people will drink coffee.

(a) Using this assumption, work out the amount of coffee Jonny needs.
Give your answer correct to the nearest gram.

..... g

(4)

Jonny's assumption is wrong.
72% of the people will drink coffee.

(b) How does this affect your answer to part (a)?

.....

.....

.....

(1)

(Total for Question 21 is 5 marks)

[Edexcel, GCSE, Summer 2023, Paper 3F, Q21]

41

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 6 is 4 marks)

[Edexcel, GCSE, November 2022, Paper 1F, Q6]

42

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 10 is 3 marks)

[Edexcel, GCSE, November 2022, Paper 1F, Q10]

43

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.

£.....

(Total for Question 7 is 4 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q7]

44

Safiya wants to hire a van.
She uses this rule to work out the cost of hiring a van for a number of days.

Cost = £45 × number of days

Safiya is going to hire the van for 7 days.

Work out the cost.

£.....

(Total for Question 8 is 2 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q8]

45

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 7 is 3 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q7]

46

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.

(Total for Question 15 is 5 marks)

[Edexcel, GCSE, November 2022, Paper 2F, Q15]

47

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 11 is 4 marks)

[Edexcel, GCSE, Summer 2022, Paper 1F, Q11]

48

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?

£.....

(Total for Question 10 is 3 marks)

[Edexcel, GCSE, Summer 2022, Paper 2F, Q10]

49

Sinita wants to make 35 picture frames.
She needs 4 nails for each frame.

Sinita has 3 boxes of nails.
There are 48 nails in each box.

Has Sinita got enough nails to make all 35 frames?
Show how you get your answer.

(Total for Question 11 is 3 marks)

[Edexcel, GCSE, Summer 2022, Paper 3F, Q11]