

CALCULATION PROBLEMS

Pearson Edexcel - Tuesday 19 May 2020 - Paper 1 (Non-Calculator) Foundation Tier

1.

15 Jamil makes a drink by mixing
1 part of orange squash with 9 parts of water.

He uses 750 millilitres of orange squash.

Jamil is going to put the drink he has mixed into 1 litre bottles.

Work out the greatest number of 1 litre bottles that Jamil can completely fill.

(Total for Question 15 is 3 marks)

2.

8 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)

3.

- 6 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)

4.

22 In October Sally drove 560 miles in her car.
The car travelled 34.5 miles for each gallon of petrol used.

Petrol cost £1.08 per litre.
1 gallon = 4.55 litres.

Work out the cost of the petrol the car used in October.

£.....

(Total for Question 22 is 4 marks)

5.

- 8 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)

6.

13 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 13 is 4 marks)

7.

- 8** 3 kg of meat costs £54
Nina buys 2 kg of the meat.

Work out how much Nina pays.

£

(Total for Question 8 is 2 marks)

8.

13 A piece of wire is 240 cm long.

Peter cuts two 45 cm lengths off the wire.

He then cuts the rest of the wire into as many 40 cm lengths as possible.

Work out how many 40 cm lengths of wire Peter cuts.

(Total for Question 13 is 3 marks)

9.

8 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 8 is 5 marks)

10.

19 Here is a list of ingredients for making 16 flapjacks.

Ingredients for 16 flapjacks
120 g butter
140 g brown sugar
250 g oats
2 tablespoons syrup

Jenny wants to make 24 flapjacks.

Work out how much of each of the ingredients she needs.

butter g

brown sugar g

oats g

syrup tablespoons

(Total for Question 19 is 3 marks)

11.

4 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)

Pearson Edexcel - Wednesday 8 November 2017 - Paper 3 (Calculator) Foundation Tier

12.

- 5 Thais has a large bottle of shampoo.
There are 2 litres of shampoo in the large bottle.

Thais also has some empty small bottles.
Each small bottle can be completely filled with 150 ml of shampoo.

How many small bottles can be completely filled with shampoo from the large bottle?

(Total for Question 5 is 3 marks)

Pearson Edexcel – Specimen 2 - Paper 1 (Non-Calculator) Foundation Tier

13.

6 Here are the instructions for making a drink.

Add 100 ml of juice to 2 litres of water

Dev uses 5 litres of water to make the drink.

How much drink has he made?

.....
(Total for Question 6 is 3 marks)

14.

13 Ryan and Carl each get paid a basic pay of £60 per day.

One day, Ryan also gets a bonus of 25% of his basic pay.

Carl also gets £20 in tips from customers.

Work out the difference between the total amounts of money that Ryan and Carl each get.

.....
(Total for Question 13 is 3 marks)

Pearson Edexcel – Specimen 2 - Paper 2 (Calculator) Foundation Tier

15.

7 Tracy buys

2 coffees at	£1.10	each
3 teas at	95p	each
5 sandwiches at	£2.15	each

Tracy shares the total cost equally between 5 people.

How much does each person pay?

£

(Total for Question 7 is 4 marks)

16.

- 12** Martin has 8 pints of soup in a pan.
He also has 24 soup bowls.
He puts 0.3 pints of soup into each bowl.
How much soup has Martin left over?

.....pints

(Total for Question 12 is 3 marks)

17.

15 Here is a list of ingredients for making chocolate mousse for 2 people.

Chocolate mousse for 2 people	
40 grams	sugar
110 grams	dark chocolate
2	eggs
$\frac{1}{4}$	teaspoon lemon juice

Ellie has 250 grams of sugar and 550 grams of dark chocolate.
She assumes that she has plenty of lemon juice and plenty of eggs.

- (a) What is the greatest number of people Ellie can make chocolate mousse for?
You must justify your answer.

(3)

Ellie only has 6 eggs.

- (b) What effect would this have on the greatest number of people Ellie can make chocolate mousse for?

(1)

(Total for Question 15 is 4 marks)

Pearson Edexcel – Specimen 2 - Paper 3 (Calculator) Foundation Tier

18.

6 Coffee is sold in jars.

There are 200 g of coffee in each jar.

Ben makes 8 cups of coffee each day.

He thinks he uses 2 g of coffee to make each cup of coffee.

Ben wants to buy enough coffee for 28 days.

(a) How many jars of coffee does Ben need to buy?

.....
(3)

Ben finds that he uses 2.5 g of coffee to make each cup of coffee.

(b) How does this affect the number of jars of coffee he needs to buy?

You must give a reason for your answer.

.....
.....
(2)

(Total for Question 6 is 5 marks)

19.

12 Ibrar buys 3 kg of apples.
He also buys 0.4kg of mushrooms.
The total cost is £6.93

1 kg of apples cost £1.95

Work out the cost of 1 kg of mushrooms.

£

(Total for Question 12 is 3 marks)

20.

14 You can use this rule to work out the total cost, in pounds, of hiring a carpet cleaner.

Multiply the number of days by 7.8 and then add 12

Andy hires a carpet cleaner.
The total cost is £82.20

(a) Work out the number of days Andy hires the carpet cleaner for.

.....days
(2)

Chloe hires a carpet cleaner for y days.
The total cost is £ T .

(b) Write down a formula for T in terms of y .

.....
(2)

(Total for Question 14 is 4 marks)

21.

19 A shop sells milk in 1 pint bottles and in 2 pint bottles.

Each 1 pint bottle of milk costs 52p.

Each 2 pint bottle of milk costs 93p.

Martin has **no** milk.

He assumes that he uses, on average, $\frac{3}{4}$ of a pint of milk each day.

Martin wants to buy enough milk to last for 7 days.

- (a) Work out the smallest amount of money Martin needs to spend on milk.
You must show all your working.

£.....
(3)

Martin actually uses more than $\frac{3}{4}$ of a pint of milk each day.

- (b) Explain how this might affect the amount of money he needs to spend on milk.

.....
.....
.....
.....
(1)

(Total for Question 19 is 4 marks)

22.

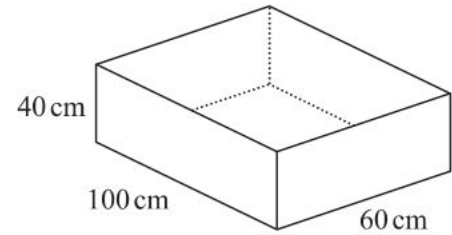
- 24 The diagram shows a sand pit.
The sand pit is in the shape of a cuboid.

Sally wants to fill the sand pit with sand.
A bag of sand costs £2.50
There are 8 litres of sand in each bag.

Sally says,

“The sand will cost less than £70”

Show that Sally is wrong.



(Total for Question 24 is 5 marks)

23.

- 5 A shop sells pens at different prices.
The cheapest pens in the shop cost 27p each.

Lottie buys 18 pens from the shop.
She pays with a £10 note.

- (a) If Lottie buys 18 of the cheapest pens, how much change should Lottie get?

£.....
(2)

Instead of buying the cheapest pens, Lottie buys 18 of the more expensive pens.
She still pays with a £10 note.

- (b) How does this affect the amount of change she should get?

.....
.....
(1)

(Total for Question 5 is 3 marks)

- 6 Michelle and Wayne have saved a total of £458 for their holiday.
Wayne saved £72 more than Michelle.

How much did Wayne save?

£.....

(Total for Question 6 is 2 marks)

25.

11 In a shop, the normal price of a coat is £65
The shop has a sale.

In week 1 of the sale, the price of the coat is reduced by 20%

In week 2 of the sale, the price of the coat is reduced by a further £10

Maria has £40

Does Maria have enough money to buy the coat in week 2 of the sale?

You must show how you get your answer.

(Total for Question 11 is 3 marks)

18 Here is a list of ingredients for making 16 mince pies.

Ingredients for 16 mince pies	
240 g of butter	
350 g of flour	
100 g of sugar	
280 g of mincemeat	

Elaine wants to make 72 mince pies.

How much of each ingredient will Elaine need?

butter g
flour g
sugar g
mincemeat g

(Total for Question 18 is 3 marks)

27.

26 Becky has some marbles.
Chris has two times as many marbles as Becky.
Dan has seven more marbles than Chris.

They have a total of 57 marbles.

Dan says,

“If I give some marbles to Becky, each of us will have the same number of marbles.”

Is Dan correct?

You must show how you get your answer.

(Total for Question 26 is 3 marks)

Pearson Edexcel – Specimen 1 - Paper 3 (Calculator) Foundation Tier

28.

15 There are 5 grams of fibre in every 100 grams of bread.

A loaf of bread has a weight of 400 g.

There are 10 slices of bread in a loaf.

Each slice of bread has the same weight.

Work out the weight of fibre in one slice of bread.

..... g

(Total for Question 15 is 3 marks)

29.

- 19** Boxes of chocolates cost £3.69 each.
A shop has an offer.

Boxes of chocolates
3 for the price of 2

Ali has £50
He is going to get as many boxes of chocolates as possible.

How many boxes of chocolates can Ali get?

.....
(Total for Question 19 is 3 marks)

OCR – Tuesday 03 November 2020- Morning - Paper 1 (Calculator) Foundation Tier

30.

- 8** Yoghurts are packed in trays.
Each tray holds 12 yoghurts.

What is the smallest number of trays needed to pack 460 yoghurts?

..... [2]

OCR November 09 November 2020- Morning (Calculator) Foundation Tier

31.

- 3 Alex has a number game.
He must put down tiles to make two calculations with the same answer.

Here is what Alex put down.

$$2 - 3 \times 2 = 3 - 5$$

Is he correct?
Show how you decide.

Alex is because

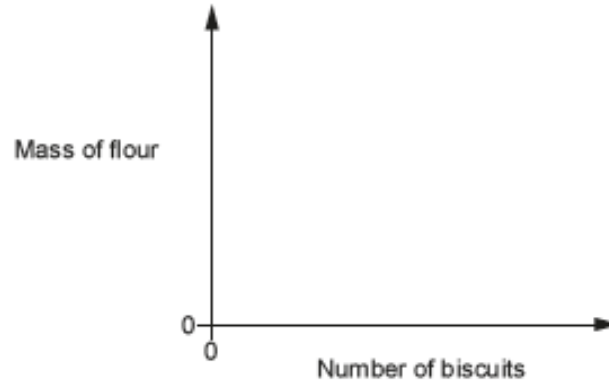
.....

..... [2]

32.

- 13 (a) The mass of flour used in a recipe doubles as the number of biscuits made doubles.

On the axes below, sketch a graph to show this relationship.



[2]

- (b) Here are some of the ingredients for a recipe to make 10 biscuits.

To make 10 biscuits:	
120g	butter
100g	sugar

Jane followed the recipe and used 432 g of butter.
All of the sugar used came from a new 2 kg bag.

- (i) Find the number of biscuits she made.

(b)(i) [3]

- (ii) Find the mass of the sugar, in grams, that Jane has left in the bag.

(ii) g [3]

OCR Tuesday 5 November 2019 – Morning (Calculator) Foundation Tier

33.

8 Plaza United are playing a football match away from home.

- (a) 379 supporters are going to the match by coach.
Each coach seats 45 people.

What is the smallest number of coaches that will be needed?

(a) [2]

- (b) In their last 50 matches, Plaza United have drawn 10 matches, lost 5 and won the rest.

Sam claims

The probability that Plaza United will win this match is 0.7.

- (i) Show calculations to support Sam's claim. [2]

- (ii) Give one reason why Sam's claim may not be reliable.

.....
..... [1]

34.

- 11 Harry has a job.
On Friday, he is paid £8.50 per hour.
On Saturday, he is paid $1\frac{1}{2}$ times that rate.

He works for 4 hours on Friday.

He works from 8 am until 1 pm on Saturday.

How much does Harry earn in total for these two days?

£ [6]

OCR Tuesday 5 November 2019 – Morning (Calculator) Foundation Tier

35.

- 20 A truck is used to transport some wood panels.
Each wood panel is a cuboid measuring 2.4m by 1.2m by 1.8 cm.
The density of each wood panel is 750 kg/m^3 .

The truck can carry 15 tonnes of these wood panels.

Calculate the maximum number of wood panels that the truck can carry.
Show how you decide.

..... [6]

OCR Monday 11 November 2019 – Afternoon (Calculator) Foundation Tier

36.

- 17 Two model cars, **A** and **B**, are in a race.
They start together on the starting line.
Assume each car travels at a constant speed.

Car **A** takes 30 seconds to complete each lap of the track.
Car **B** takes a whole number of seconds to complete each lap of the track.
The two cars next cross the starting line together 150 seconds after the start of the race.

Find the **four** possible times that car **B** could take to complete one lap.

You may find this information helpful.

$$150 = 2 \times 3 \times 5 \times 5$$
$$30 = 2 \times 3 \times 5$$

..... seconds [5]

OCR Tuesday 21 May 2019 – Morning (Calculator) Foundation Tier

37.

- 8 Kim is paid £9.40 per hour for the first 35 hours she works each week. After 35 hours she is paid at one and a quarter times the hourly rate.

One week Kim works 42 hours.

Calculate how much she is paid for that week.

£ [6]

38.

9 Mike drinks $\frac{2}{5}$ of a litre of juice each day.

Juice costs £4.40 for a 2 litre carton and £2.60 for a 1 litre carton.

Mike buys enough juice to last for 7 days.

What is the lowest price Mike can pay for this juice?
Show how you decide.

£ [4]

OCR Tuesday 21 May 2019 – Morning (Calculator) Foundation Tier

39.

21 James and Elizabeth buy some clothes.

James buys 5 shirts and 4 jumpers. He pays £163.

Elizabeth buys 3 shirts and 2 jumpers. She pays £89.

Assume that each shirt has the same cost and that each jumper has the same cost.

Work out the cost of one shirt and the cost of one jumper.

You must show your working.

Cost of one shirt £

Cost of one jumper £ [5]

OCR Thursday 6 June 2019 – Morning (Non-Calculator) Foundation Tier

40.

13 Rashid is making cupcakes using these ingredients.

<p style="text-align: center;">Cupcake ingredients</p> <p style="text-align: center;"><i>Makes 20 cupcakes</i></p> <p>120g flour</p> <p>140g butter</p> <p>4 eggs</p> <p>60g cocoa powder</p> <p>50ml of water</p>

(a) How many eggs does he need to make 60 cupcakes?

(a) [1]

(b) How much butter is needed to make 5 cupcakes?

(b) g [2]

(c) Rashid has 210 g of cocoa powder and plenty of the other ingredients.
He says that he can make at least 75 cupcakes.

Is he correct?
Explain your reasoning.

..... [3]

OCR Tuesday 11 June 2019 – Morning (Calculator) Foundation Tier

41.

- 13 Delroy drives 240 miles.
His car averages 40 miles per gallon of petrol.
Petrol costs £1.30 per litre.

1 gallon is 4.5 litres.

How much does Delroy spend on petrol for this journey?

£ [4]

42.

- 14 Joan makes cups of tea and coffee at a lunch club.
Each cup requires 250 ml of boiling water.
She has a kettle that boils up to 1.7 litres of water each time.

She boils 10 litres of water in an urn.
She then uses the kettle to boil the rest of the water she needs.

Find the least number of times that Joan needs to boil the kettle to make 56 cups.
Show how you decide.

..... [5]

43.

17 A grain of salt weighs 6.48×10^{-5} kg on average.
A packet contains 0.35 kg of salt.

(a) Use this information to calculate the number of grains of salt in the packet.

(a) [2]

(b) Explain why your answer to part (a) is unlikely to be the actual number of grains of salt in the packet.

.....
.....
..... [1]

OCR Tuesday 6 November 2018 – Morning (Calculator) Foundation Tier

44.

- 17 James works from 2pm until 8.30pm on both Thursday and Friday.
He is paid £12 per hour.

On Saturday he is paid $1\frac{1}{2}$ times this hourly pay.

He works for 5 hours on Saturday.

Calculate how much James earns **in total** for these three days.

£ [6]

45.

22 Hector can run 400 metres in 66 seconds.

(a) Use this information to show that he could run 5 kilometres in less than 14 minutes. **[4]**

(b) Hector tries to run 5 kilometres in less than 14 minutes.

Give one reason why he might not achieve this.

.....
..... **[1]**

46.

- 25 Marcin buys 7 rulers and 15 crayons for £7.
A ruler costs 12p more than a crayon.

Find the cost of one crayon.

cost of one crayon = p [5]

OCR Thursday 8 November 2018 – Morning (Non-Calculator) Foundation Tier

47.

- 8 A water company charged the following in 2017.

£2.00 for each m ³ of water used plus a fixed charge of £45
--

In 2017 Jenny used 110 m³ of water.

For the 12 months of 2017 she paid £20 per month to the water company.

How much more money does Jenny need to pay to the water company?

£ [6]

OCR Monday 12 November 2018 – Morning (Calculator) Foundation Tier

48.

8 This table shows the ticket price for each person to visit a zoo in winter.

Type of ticket	Ticket price
Adult (aged 18 and over)	£18
Child (aged 3 to 17)	£14
Child (aged below 3)	Free

(a) A family of two adults, one child aged 8 and one child aged 1 visit the zoo in winter.

What is the total cost of the tickets?

(a) £ [2]

(b) In summer, the zoo increases the prices.

An Adult ticket increases by 20%.
A Child ticket increases by 15%.

How much more does it cost the family to visit in the summer than in the winter?

(b) £ [4]

OCR Monday 24 May 2018 – Morning (Calculator) Foundation Tier

49.

- 10** Reuben hires a car.
It costs £150, **plus** 85p for each mile he travels.

When Reuben hires the car, its mileage is 27 612 miles.
When Reuben returns the car, its mileage is 28 361 miles.

How much did Reuben pay to hire the car?

£..... [4]

50.

11 Pippa owns a snack bar.

(a) She uses $\frac{3}{5}$ of a kilogram of spread each day.

Spread costs £3.20 for a 1 kilogram tub and £6.15 for a 2 kilogram tub.

Pippa buys enough spread to last for 14 days.

What is the lowest price Pippa can buy this spread for?
Show your working.

(a) £..... [4]

(b) In 2016, Pippa paid £1650 rent.
In 2017, the rent increased by 14%.

Calculate the amount of rent she paid in 2017.

(b) £..... [3]

51.

- 14** Aditi, Becky and Calli collect coins.
Aditi has **6 more** coins than Becky.
Calli has **1 less** coin than Aditi.
Altogether they have 71 coins.

How many coins do they each have?
Show all your working.

Aditi has coins

Becky has coins

Calli has coins

[5]

OCR Thursday 7 June 2018 – Morning (Non Calculator) Foundation Tier

52.

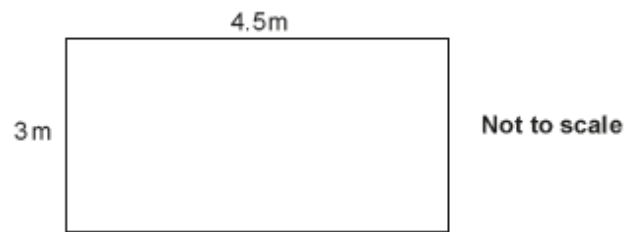
- 8 Liam is 0.83 metres tall.
William is 1.31 metres tall.
Jacob is taller than Liam by half the difference between Liam's height and William's height.

How tall is Jacob?

..... m [3]

53.

15 Here is the floor plan of a rectangular room.



Tim buys carpet tiles for this room.

Each tile is a square measuring 50 cm by 50 cm.

The tiles are only sold in packs of ten.

Each pack costs £20.

Tim pays for fitting at a rate of £7.50 per square metre, with any fraction of a square metre rounded up.

Work out the **total** cost of the tiles and fitting.

£ [6]

OCR Tuesday 12 June 2018– Morning (Calculator) Foundation Tier

54.

10 4 people take 3 hours to paint a fence.

Assume that all people paint at the same rate.

(a) How long would it take one of these people to paint the same fence?

(a) hours [1]

(b) How long would it take 5 people to paint the same fence?
Give your answer in hours and minutes.

(b) hours minutes [4]

OCR Thursday 2 November 2017– Morning (Calculator) Foundation Tier

55.

- 11** Students deliver catalogues and leaflets to houses.
One day, they have to deliver 360 catalogues and 1440 leaflets.
Each student can deliver either 15 catalogues or 80 leaflets in 1 hour.
Each student can only work for 8 hours.

Work out the **minimum** number of students needed.

..... [4]

56.

- 14 Katy buys x cakes.
Gugu buys 3 times as many cakes as Katy.
Deanna buys 2 more cakes than Katy.

Each cake costs 85p.
The total cost of the cakes is £52.70.

How many cakes did each girl buy?

Katy: cakes

Gugu: cakes

Deanna: cakes **[6]**

OCR Thursday 2 November 2017– Morning (Calculator) Foundation Tier

57.

16 Donald swims 3 lengths of a swimming pool in 93 seconds.

(a) Use this information to show that he could swim 100 lengths in under 55 minutes. [4]

(b) What assumption did you make in part (a)?

.....
..... [1]

(c) Donald tries to swim the 100 lengths in under 55 minutes.

Suggest one reason why he might not achieve this.

.....
..... [1]

Pearson Edexcel – Sample Papers - Paper 1 (Non-Calculator) Foundation Tier

58.

7 One day Sally earned £60
She worked for 8 hours.

Work out Sally's hourly rate of pay.

£.....

(Total for Question 7 is 2 marks)

59.

15 Carpet tiles are going to be used to cover a floor.

The floor is a 1200 mm by 1000 mm rectangle.
Each carpet tile is a 40 cm by 30 cm rectangle.

Exactly 10 carpet tiles can be used to cover the floor completely.

Show in a labelled sketch how this can be done.

(Total for Question 15 is 3 marks)

OCR Thursday 8 June 2017 – Morning (Non - Calculator) Foundation Tier

60.

- 3 (a) Nathan works out 23×12.4 without a calculator.

This is Nathan's working.

$10 \times 12.4 = 12.40$
$20 \times 12.4 = 24.80$
$3 \times 12.4 = 37.2$
$23 \times 12.4 = 24.80 + 37.2 = 62$

Nathan's working is incorrect.

Explain the error that Nathan has made and work out the correct answer.

.....

.....

..... [3]

- (b) Four friends buy cinema tickets using this offer.

<p>Cinema tickets</p> <p>Buy 3 tickets and get a ticket free</p>
--

They **each** pay £6.45.

How much does a ticket cost?

(b) £ [3]

OCR Sample Question Paper 1 – Morning/Afternoon (Calculator) Foundation Tier

61.

11 Show that $4(a + 3) - 3(a - 2) = a + 18$.

[2]

OCR Sample Question Paper 1 – Morning/Afternoon (Calculator) Foundation Tier

62.

19 Peter makes a large amount of pink paint by mixing red and white paint in the ratio 2 : 3.

Red paint costs £80 per 10 litres.

White paint costs £5 per 10 litres.

Peter sells his pink paint in 10-litre tins for £60 per tin.

Calculate how much **profit** he makes for each tin he sells.

£ **[5]**

OCR Sample Question Paper 2 – Morning/Afternoon (Non - Calculator) Foundation Tier

63.

- 11 (a)** A shop sold goods worth a total of £50 000 in January.
The value of goods sold in February was 10% lower than in January.

Calculate the value of goods sold in February.

(a) £ **[2]**

- (b)** Each month, the value of goods sold continued to be 10% lower than the previous month.
When the value of goods sold was less than £35 000, the shop closed at the end of that month.

Show that the store closed at the end of May.
You must show your working.

[3]

- (c)** The store reopens under new management and sells goods worth £100 000 in the first month.
- The value of goods sold in the second month is 20% more than the first month.
 - The value of goods sold in the third month is 10% less than the second month.

Find the percentage increase in the total value of goods sold from the first month to the third month.

OCR Sample Question Paper 3 – Morning/Afternoon (Calculator) Foundation Tier

64.

- 3 (a) How many 20p coins would you need to make up £7000?

(a) [2]

- (b) Each 20p coin weighs 5g.

Lizzie says

I can lift £7000 worth of 20p coins.

Is Lizzie's claim reasonable?

Show your working and state any assumptions you have made.

.....
..... [4]

- (c) How have any assumptions you have made affected your answer to part (b)?

..... [1]

65.

11 Ema has done some calculations.

For each calculation, explain how you know the answer is wrong without working out the correct answer.

(a) $0.38 \times 0.26 = 0.827$

.....
..... [1]

(b) $\frac{3}{4} + \frac{2}{3} = \frac{5}{7}$

.....
..... [1]

AQA Tuesday 19 May 2020 – Morning (Non-Calculator) Foundation Tier

66.

9 Harry will pay income tax if he earns more than £12 500 in a year.
After 8 months he has earned a **total** of £7600
For the rest of the year he earns £1200 each month.

Will he pay income tax?
You **must** show your working.

[3 marks]

67.

11 Here are two calculations.

A $17^2 - 300$

B $47 \times 21 - 10^3$

Which calculation has the smaller answer?

You **must** show the answer to each calculation.

[2 marks]

Answer _____

68.

13

Jenny works for 30 hours and is paid £318

Calvin works for 28 hours and is paid £287

Jenny is paid more per hour than Calvin.

How much more?

[3 marks]

Answer _____ pence

AQA Monday 8 June 2020 – Morning (Calculator) Foundation Tier

69.

- 6** Greg wants to buy a games console that costs £267.50
He already has £125
He will save £7.50 each week.

In how many weeks will he have saved enough?

[3 marks]

Answer _____

AQA Tuesday 21 May 2019 – Morning (Non-Calculator) Foundation Tier

70.

7 Amy and Brad each have some money.

Carly has no money.

Amy gives £7 to Carly.

Brad gives £5 to Carly.

Now they all have the same amount of money.

How much money did Amy have to begin with?

[2 marks]

Answer £ _____

AQA Thursday 6 June 2019 – Morning (Calculator) Foundation Tier

71.

7 Complete the bank statement.

[3 marks]

Date	Description	Credit (£)	Debit (£)	Balance (£)
01/04/2019	Starting balance			_____
05/04/2019	Council tax		189.34	72.09
10/04/2019	Refund	_____		86.75
12/04/2019	Salary	1430.29		_____

72.

- 6** Josh downloads album A.
A has 11 tracks.
Each track on A costs the same.
The total cost of downloading A is £8.80

Josh also downloads album B.
B has 14 tracks.

- 6 (a)** Work out the total cost of downloading B.
Assume each track costs the same as a track on A.

[3 marks]

Answer £ _____

- 6 (b) In fact, compared to the cost of each track on A
the cost of 6 tracks on B is **more** by 5p each
the cost of 8 tracks on B is **less** by 5p each.

What does this tell you about your answer to part (a)?

Tick **one** box.

The total cost is **less** than my answer to part (a)

The total cost is **more** than my answer to part (a)

The total cost is **the same** as my answer to part (a)

Give a reason for your decision.

[2 marks]

AQA Tuesday 6 November 2018 – Morning (Non-Calculator) Foundation Tier

73.

- 6 The cost of 3 calendars is £18

Work out the cost of 5 calendars.

[2 marks]

Answer £ _____

AQA Thursday 8 November 2018 – Morning (Calculator) Foundation Tier

74.

- 5** Lucy works for 37 hours per week.
Her weekly wage is £303.40
She receives a pay increase of 25p per hour.
Work out her new weekly wage.

[2 marks]

Answer £ _____

AQA Monday 12 November 2018 – Morning (Calculator) Foundation Tier

75.

- 8 Beth sells hot dogs at a market.
Each hot dog is a sausage in a bread roll.



Hot dogs
£3 each

The table shows her costs.

Fee paid to market	£240
Bread rolls	42p per pack of 6
Sausages	£2.50 per jar of 10
Other costs	£57

Beth sells the hot dogs for £3 each.
She sells 300 hot dogs.

Work out her total profit.

[5 marks]

Answer £ _____

AQA Thursday 7 June 2018 – Morning (Calculator) Foundation Tier

78.

- 8 The numbers 1 to 12 are put in a grid.
2, 4, 5, 7, 10 and 12 are shown.

		5	10
12			
4			
7		2	

Each of the four sides of the grid must add up to 26

Complete the grid using the numbers

1, 3, 6, 8, 9 and 11

[3 marks]

AQA Thursday 7 June 2018 – Morning (Calculator) Foundation Tier

79.

11 Nick has a 6-digit code.

He remembers it as three 2-digit numbers.

The first number is between 10 and 20

The second number is 3 times the first number.

The third number is 5 times the first number.

All six digits are **different**.

Work out the code.

[3 marks]

Answer _____

AQA Tuesday 12 June 2018 – Morning (Calculator) Foundation Tier

80.

- 6** Saj wants to go to all 19 home games at a football club.
For each game, a ticket costs £28
A season ticket
costs £379
and
gives entry to all 19 home games.

In total, how much does Saj save by buying a season ticket?

[3 marks]

Answer £ _____

AQA Tuesday 12 June 2018 – Morning (Calculator) Foundation Tier

81.

- 15** Four positive whole numbers add up to 36
One of the numbers is a multiple of 7
The other three numbers are equal.

Work out the result when the four numbers are multiplied.

[3 marks]

Answer _____

AQA Thursday 2 November 2017 – Morning (Non-Calculator) Foundation Tier

82.

6 (a) Work out $9174 \div 11$

[2 marks]

Answer _____

6 (b) Work out $\frac{5}{6} + \frac{3}{7}$

Give your answer as a mixed number.

[3 marks]

Answer _____

83.

- 8** A library book was due to be returned on 27 September.
It was actually returned on 14 October.
There is a fine of 8p for every day the book is late.

Work out the total fine.

[3 marks]

Answer £ _____

84.

- 16** Complete the grid so that when you multiply the three numbers in any column, row or diagonal the answer is 1

[3 marks]

10		$\frac{1}{2}$
$\frac{1}{20}$		20
2	5	

85.

7 Eve has these coins.



Ola has these coins.



Eve gives **three** of her coins to Ola.

Now, Ola has the same amount of money as Eve.

Which coins does Eve give to Ola?

[3 marks]

Answer _____, _____, _____

AQA Thursday 25 May 2017– Morning (Non-Calculator) Foundation Tier

87.

8 Nadia has £5 to buy pencils and rulers.

Prices	
Pencils	8p each
Rulers	30p each

She says,

“I will buy 15 pencils.

Then I will buy as many rulers as possible.

With my change I will buy more pencils.”

How many pencils and how many rulers does she buy?

[6 marks]

Answer _____ pencils, _____ rulers

AQA Thursday 8 June 2017– Morning (Calculator) Foundation Tier

88.

9 Complete the bank statement.

[2 marks]

Date	Description	Credit (£)	Debit (£)	Balance (£)
13/12/2016	Starting balance			212.48
14/12/2016	Council tax		128.39	_____
15/12/2016	Salary	856.21		_____

AQA Sample Paper 1– Morning (Non-Calculator) Foundation Tier

89.

15 Textbooks are stored on two shelves.

Each shelf is 0.72 metres long.

Each textbook is 30 millimetres wide.

Not drawn accurately



Can 50 textbooks be stored on these shelves?

You **must** show your working.

[3 marks]

Answer _____

AQA Sample Paper 1– Morning (Non-Calculator) Foundation Tier

90.

- 19** Sam wants to buy a camera for £345
He has already saved £96
Each week
his pay is £80
he saves 30% of this pay.

How many **more** weeks must he save?

[4 marks]

Answer _____ weeks

AQA Sample Paper 2– Morning (Calculator) Foundation Tier

91.

10 Tom earns £9.20 per hour.

He works for

24 hours each week

48 weeks each year.

He pays tax if he earns more than £10 000 per year.

Does Tom pay tax?

You **must** show your working.

[2 marks]

AQA Sample Paper 2– Morning (Calculator) Foundation Tier

92.

- 13** Alice makes cards.
Each card uses 42 cm of ribbon.
She has 1000 cm of ribbon.

13 (a) Work out the **maximum** number of cards she can make.

[2 marks]

Answer _____

13 (b) How much ribbon will be left over?

[1 mark]

Answer _____ cm

AQA Sample Paper 3– Morning (Calculator) Foundation Tier

93.

4 Liz buys a car for £7500

She pays a deposit of £1875

She pays the rest in 36 equal monthly payments.

Work out the amount of each monthly payment.

[3 marks]

Answer £ _____