



GCSE Foundation 04

Number



63 minutes



60 marks

Decimals

Q1. Amie buys

a book for £5.99

a newspaper for £1.80

3 pens for 27p each.

She only has a £10 note.

How much change should she receive?

You **must** show your working.

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Answer £

(Total 4 marks)

Q2. Naomi sees this offer.

Soup		
Normal price		85p per tin
Special offer	3 tins for the price of 2	

She buys six tins of soup using the special offer.

How much cheaper is this than paying the normal price?

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Answer £

(Total 3 marks)

Q3. Steve buys 60 plants for £2.50 each.

He sells 25 of the plants for £5 each.

He sells 20 of the plants for £4 each.

He wants to make £100 profit.

What should he sell each of the remaining plants for?

You **must** show your working.

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Answer £

(Total 6 marks)

Q4. (a) One cubic metre (m^3) of concrete weighs 2.4 tonnes.

A base for a shed uses 3.8 m^3 of concrete.

Work out how much this concrete weighs.

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Answer tonnes

(2)

(b) A base for a garage uses 12.5 tonnes of concrete.

A lorry delivers ready-mixed concrete in loads of 14 tonnes.

How many of these bases can be built with 10 loads of concrete?

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Answer

(3)

(Total 5 marks)

Q5. The diagram shows two different sweets and their weights.



The sweets are sold in bags.
Each bag contains 120 grams of sweets.

- (a) How many of sweet A are needed to fill one bag?

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Answer

(2)

- (b) A 120-gram bag is filled with the same number of each sweet.

How many of each sweet are in the bag?

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Answer

(3)

- (c) The 120-gram bags are put into boxes.
The total weight of the bags in each box is 6 kilograms.

How many bags are in each box?

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Answer

(3)

- (d) The 120-gram bags are sold for £1.99 each.
The sweets are also sold loose at 100 grams for £1.59

Which is better value?

You **must** show your working.

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(3)
(Total 11 marks)

Q6.

Electricity Bill Charges	
First 200 units	24p per unit
Remaining units	15p per unit

Mrs Spark checks her electricity bill.
Here are her meter readings.

New reading: 5647 units
Old reading: 5345 units

Work out the total cost for the number of units used.

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Answer £

(Total 5 marks)

Q7. Ronan is designing a game.

He has two sets of discs laid face down on a table.

The first set of five discs are labelled 1, 3, 5, 7, 9.

The second set of four discs are labelled 2, 4, 6, 8.

Players turn over one disc, at random, from each set and add the numbers together.

(a) Complete the table to show **all** the possible totals.

	1	3	5	7	9
2	3	5	7		
4	5				
6					
8					

(2)

(b) What is the probability of getting a total less than six?

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Answer

(1)

(c) Ronan uses the game to raise money for charity.

Each player pays 20 p to play the game.

If a player gets a total of exactly 13 they win a bar of chocolate.

It costs Ronan 50 p for each bar of chocolate.

If 100 people play the game, show that Ronan should expect to raise £12.50 for charity.

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(4)

(Total 7 marks)

Q8. (a) Write these decimals in order, smallest first.

0.4

0.308

0.35

Answer

(1)

(b) Write 15.2864 to 2 decimal places.

Answer

(1)

(c) Work out

(i) $\frac{1}{12.5}$

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Answer

(1)

(ii) $\frac{4.5}{0.6^2}$

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Answer

(1)

(d) Hassan says



When you square a positive number the answer is **always** bigger than the original number.

For example

$$2.5^2 = 6.25 \quad \text{and} \quad 6.25 \text{ is bigger than } 2.5$$

Find an example to show that Hassan is wrong.
You **must** show your working.

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(2)

(Total 6 marks)

Q9. (a) Calculate $2.7^2 + \sqrt{3.5}$

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Answer

(1)

(b) Calculate the cube of 4.2

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Answer

(1)

(c) A drink in Japan costs 374 yen.
The exchange rate is £1 = 189 yen.
What is the cost in pounds?

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Answer £

(2)

(Total 4 marks)

Q10. (a) Caroline buys 1.4 kilograms of bananas at 95 pence per kilogram.
She also buys 0.8 kilograms of apples.
Her total bill is £1.93
How much per kilogram was she charged for the apples?

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Answer pence

(4)

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

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Answer %

(2)
(Total 6 marks)

Q11. You are given that $372 \times 51 = 18\,972$

Use this information to find the answers to

- (a) 3720×51

Answer

(1)

- (b) $18\,972 \div 5.1$

Answer

(1)

- (c) 372×102

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Answer

(1)
(Total 3 marks)

