

Addition and Subtraction

Question Paper

Level	OCR
Subject	Maths
Exam Board	GCSE (9-1)
Topic	Number Operators And Integers
Sub Topic	Addition and Subtraction
Grade Level	Grade 1/2
Booklet	Question Paper

Time Allowed: 78 minutes

Score: /65

Percentage: /100

1 In 2014 the Winter Olympics were held in Russia.

(a) This two-way table shows the medals won by the top three countries.

Country	Gold	Silver	Bronze	Total
Russian Federation	13			33
Norway	11		10	26
Canada	10	10	5	25
Total	34	26		

Complete the table.

[3]

(b) In the men's 50km cross-country skiing race, the winner finished in 1 hour 46 minutes 55.2 seconds.

The last competitor to finish took 21 minutes 6.8 seconds longer.

What was the last competitor's time for the race?

..... hours minutes seconds [2]

- 2 200 students from Years 10 and 11 in a school were asked whether they preferred Maths lessons or Science lessons.

The table below summarises how they responded.

	Year 10	Year 11	Total
Maths	73		
Science			81
Total	110		200

- (a) Complete the table. [3]

- (b) One of the 200 students is chosen at random.

What is the probability that this student is from Year 10?

(b) [2]

- (c) One of these 200 students is chosen at random.

What is the probability that this student is from Year 11 and prefers Maths lessons?

(c) [1]

- 3 Sukrit and Anna are playing a game called 'Make 100'.
Sukrit says a 2-digit number.
Anna says the number that has to be added to this to make 100.

For example, if Sukrit says 60, Anna says 40 as $60 + 40 = 100$.

- (a) Complete these two games.

Sukrit says 36, Anna says _____

Sukrit says 81, Anna says _____

[1]

- (b) They play the game 12 times.

What should be the total of **all** their numbers?

(b) _____ [1]

- (c) In another game of 'Make 100', their two numbers have a **difference** of 50.

What are their two numbers?

(c) _____ and _____ [1]

- 4 Geta did a survey of the type and weight of tea bought by 100 people. She displayed her results in a table.

Complete the table.

Tea type Weight	Regular tea bags	Decaffeinated tea bags	Loose leaf tea	Total
50g	2	0	5	
100g	35	18		60
200g	16			
Total		25		100

[3]

5 Complete these calculations.

(a)

$$41 + \square = 100$$

$$100 - \square = 72$$

$$7 \times 9 = \square$$

$$54 \div 9 = \square$$

[2]

(b) A tap dancer does one tap every 0.05 seconds.
Lucy wants to work out how many taps this dancer does in one minute.

(i) What division could Lucy do to work this out?

(b)(i) [1]

(ii) Work out how many taps this dancer could do in one minute.

(ii) [3]

- 6 Here is a list of ingredients for a fruit cake.
1 pound (lb) = 16 ounces (oz)

Fruit Cake			
<u>Dried fruit</u>		<u>Other ingredients</u>	
- Currant	$1\frac{1}{4}$ lb	- Flou	10 oz
- Sultana	$\frac{1}{2}$ lb	- Brown suga	10 oz
- Raisin	$\frac{1}{2}$ lb	- Butte	10 oz
- Glace cherrie	$2\frac{1}{2}$ oz	- Egg	5
- Mixed pee	$2\frac{1}{2}$ oz		

- (a) Find the total weight, **in ounces (oz)**, of all the dried fruit.

(a) _____ oz [2]

- (b) A baker plans to make 25 of these fruit cakes.

- (i) How many pounds of currants will she need altogether?
Give your answer as a mixed number.

(b)(i) _____ lb [2]

- (ii) She buys eggs in boxes of 12.

How many boxes of eggs will she need?

(ii) _____ [2]

- 7 (a) Ann has 21 paperback books on her bookshelf.
Each paperback book is 2 cm wide.
Her bookshelf is 670 mm long.

Calculate how many **more** paperback books of this size she can fit on the shelf.

















(a) _____ [4]



- (b) Ann buys 3 books.
They cost £3.99, £5.49 and £6.99.
She pays with a £20 note.


How much change should she get?


(b) £ _____ [3]

- 8* Each symbol in this grid represents a number.
Each number outside the grid is the sum of the numbers in that row or column.

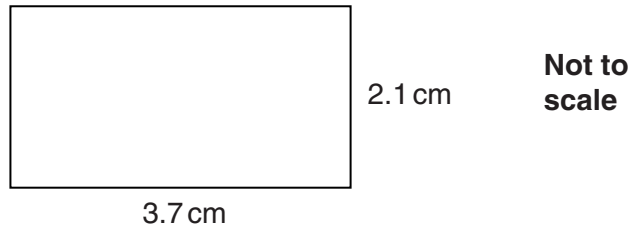
				24
				3
				9
				13
-2	13	24	14	

Use algebra to find the values represented by  and .

 = _____

 = _____ [5]

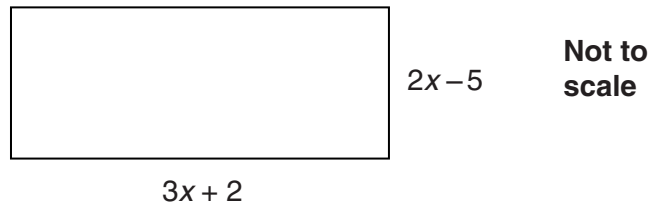
- 9 (a) Here is a rectangle.



Work out the perimeter of the rectangle.

(a) _____ cm [2]

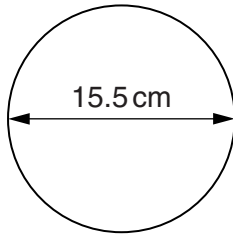
- (b) Here is a different rectangle.
All lengths are in centimetres.



Work out the perimeter of the rectangle.
Give your answer in its simplest form.

(b) _____ cm [3]

- (c) A circular tea plate has a diameter of 15.5 cm.



- (i) Work out the circumference of this plate.

(c)(i) _____ cm [2]

- (ii) A circular dinner plate is an enlargement of the circular tea plate.
The dinner plate has a diameter of 27.9 cm.

Complete the following sentences.

The scale factor of the enlargement is _____ .

The circumference of the dinner plate is _____ times the circumference of the tea plate.

[3]

- 10 (a) Joe and Pam planted crocus bulbs in their gardens.
They shared a bag of 250 crocus bulbs.
The table shows the colour of the flower from each bulb.

	Yellow	Purple	White	Totals
Joe	64	40		125
Pam	56		32	125
Totals	120			250

- (i) Complete the table.

[3]

- (ii) Write the ratio 64 : 56 as simply as possible.

(a)(ii) _____ [1]

- (b) Sumita bought a pack of 60 crocus bulbs which produced Yellow, Purple or White flowers.
The ratio Yellow : Purple : White was 7 : 5 : 3.

How many of the 60 bulbs produced White flowers?

(b) _____ [3]

11 Complete the five missing amounts in this bill.

35 m ² of carpet at £25.20 per m ²	£ _____
35 m ² of underlay at £ _____ per m ²	£ _____
Fixings	£ 13.3
Cost of all items	£ 1112.00
VAT (20% of the cost of all items)	£ _____
TOTAL	£ _____

[5]

12 Calculate.

$$\frac{6.26 - 0.82}{1.55}$$

Give your answer correct to 2 decimal places.

_____ [2]