

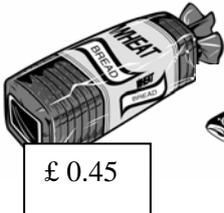
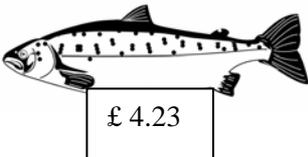
DO NOT WRITE ON THIS PAPER	TIME – 1 hour 30 minutes	<i>Paper 2 of 5 from ZigZag Education</i>
Sample GCSE Examination Paper Foundation tier non-calculator paper	Standard Equipment: pen, pencil, ruler, protractor, compasses.	

1. I have 3 red balls, 4 green balls and 1 yellow ball.
I choose one ball at random.
- a) What is the probability that I choose a green ball? Answer [1]
- b) What is the probability that I choose either a green or a red ball?
..... Answer [1]

2. Jo and Fred divide £32 between them, so that Fred receives $\frac{1}{4}$ of the total amount.
- a) How much money does Fred receive?
.....
..... Answer [2]
- b) How much money does Jo receive?
.....
..... Answer [1]
- c) What percentage of the total does Jo receive?
.....
..... Answer [2]

3. John works in customer services. Over a 36 hour working week he spends 20 hours on the phone.
What fraction of his working time does he spend on the phone? Give your answer as a simplified fraction.
.....
..... Answer [2]

4.

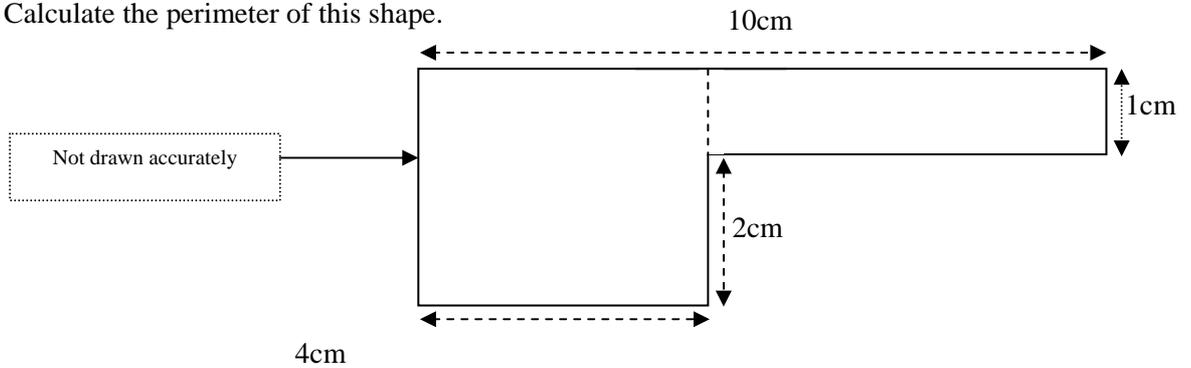
				
£ 2.41	£ 1.22	£ 2.33	£ 0.45	£ 4.23

- Jane buys the four cheapest items.
Tim buys the four most expensive items.
- a) Which item does Jane not buy? Answer [1]
- b) How much does Jane spend altogether?
..... Answer [2]
- c) How much does Tim spend altogether?
..... Answer [1]

- Tim uses a £20 note to buy the goods.
- d) How much change does he get? Answer [1]

- Jessica has £5, and buys the two items that leave her the least change.
- e) Which 2 items does Jessica buy? Answer [1]

5. a) Calculate the perimeter of this shape.



.....
 Answer [2]

John, using card, makes the above shape. By cutting along the dotted line he makes two rectangles.

- b) Accurately draw out the two rectangles. [2]

- c) Calculate the area of the original shape.....

 Answer [3]

6. A group of students survey the local population about their working hours and type of work. They summarise their findings in the following table:

	Men	Women
Office workers surveyed	8	5
Voluntary workers surveyed	4	9
Other workers surveyed	6	10
Average hours per week	33	31

- a) How many people were surveyed?..... Answer [2]
 b) How many men were surveyed? Answer [2]
 c) How many women are doing voluntary work? Answer [1]

A worker is selected at random.

- d) What is the probability that a woman is selected? Answer [1]
 e) What is the difference in the average working hours of men and women?
 Answer [1]

7. Some food costs £43 plus a handling charge. The handling charge is 10% of the cost of the food.

a) Calculate the amount charged for handling in this instance. (Give your answer in pounds.)

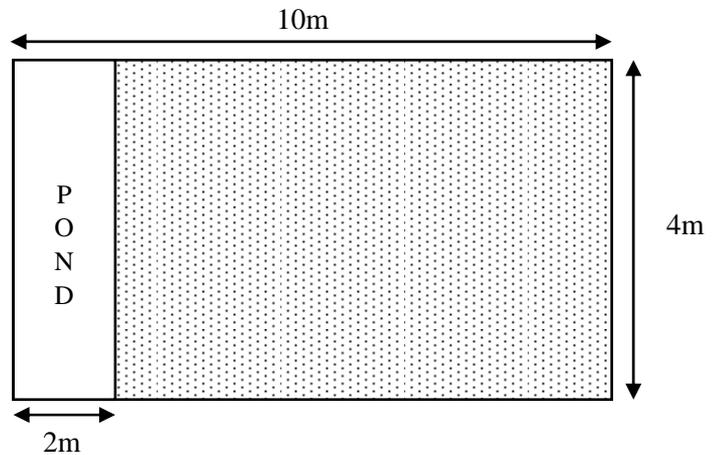
..... Answer [1]

b) How much is the total cost of the food and handling charge?

..... Answer [2]

8. Sandy is designing his new lawn, and needs to know how much money he needs to buy turf. Turf is £5 per square metre. His garden, as shown in the diagram, has a rectangular pond at one end.

How much money will Sandy need for his lawn?



.....
.....
.....
.....
..... Answer [8]

9. Jane thinks of a number, adds 4 and then doubles her result.

a) If Jane starts with 5 what does she end up with?

Answer [1]

b) If Jane ends up with 100 what did she start with?

..... Answer [2]

Tom thinks of a number, doubles it and then adds 4 to the result.

c) If Tom starts with 5 what does he end up with?

Answer [1]

d) If Tom starts with x what does he end up with?

Answer [2]

10. a) Write down all the factors of 20.

..... [3]

b) Which two factors of 20 add together to make 21?

Answer [1]

11. a) Write 50% as a fraction in its simplest form.

Answer [1]

b) Write 0.4 as a fraction in its simplest form.

Answer [1]

c) Write $\frac{2}{10}$ as a decimal.

Answer [1]

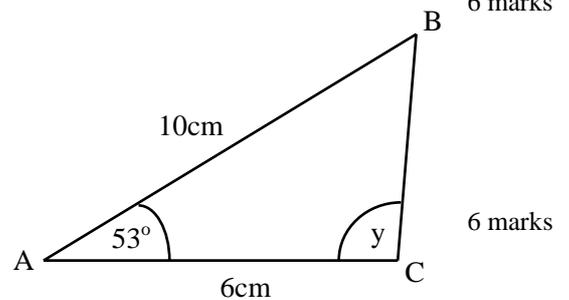
For Questions 12 onwards there is no marked out space to write your answers. Where there is not enough space, write your answers on separate paper. In your actual GCSE examination, marked spaces are normally provided on the whole paper.

12. Simon is trying to find out which subject he is best at.
In English, he got 45 out of 50. In Science, he got 14 out of 20. In Maths, he got 8 out of 10.
- a) What was Simon's percentage in
- i) English
 - ii) Science
 - iii) Maths
- b) Which is Simon's best subject? 4 marks

13. a) Simplify:
- i) $y^5 \times y^2$
 - ii) $4y + 3 - 2y$
 - iii) $3y + 2y^2 - y$
- b) Solve:
- i) $6x - 12 = 18$
 - ii) $24 - x = 3$
- 7 marks

14. Continue the next two numbers of the following sequences:
- a) 4, 7, 10, 13,
 - b) 12, 9, 5, 0,
 - c) 1, 4, 9, 16,
- 6 marks

15. Here is a sketch of a triangle ABC .
- a) Construct a full scale, accurate drawing of the triangle in the space below.
 - b) Measure the size of angle y .
 - c) Find the perimeter of the triangle.



16. Joe and Ashra buy a lottery ticket, which costs £1.
Joe contributes 80p and Ashra 20p.
They win £50.
They divide their winnings in the same ratio as their contributions.
How much does Joe get? 2 marks

