

## SURVEY USING SAMPLE

Pearson Edexcel - Thursday 9 June 2016 - Paper 2 (Calculator) Higher Tier

1.

19 The table gives information about 234 students in a school.

Year group	Number of female students	Number of male students
Year 12	77	51
Year 13	53	31
Year 14	13	9

Sadia is doing a survey of these students.

She is using a sample of 50 students stratified by year group and by gender.

Work out the number of Year 12 male students in the sample.

---

(Total for Question 19 is 2 marks)

---

Pearson Edexcel - Friday 6 November 2015 - Paper 2 (Calculator) Higher Tier

2.

21 148 students went to Brighton.

Each student went to the Aquarium or the Brighton Wheel or the Royal Pavilion.

The table gives information about these students.

	Aquarium	Brighton Wheel	Royal Pavilion
Male	16	15	22
Female	36	35	24

The teacher takes a sample of 40 of these students.

The sample is stratified by gender and by place visited.

Work out the number of students in the sample who are female and went to the Brighton Wheel.

---

(Total for Question 21 is 2 marks)

---

Pearson Edexcel - Friday 13 June 2014 - Paper 2 (Calculator) Higher Tier

3.

- 8 Lorna carries out a survey about the number of times customers go to a shop.  
She asks at random 100 customers how many times they went to the shop last month.  
The table shows Lorna's results.

Number of times	0	1	2	3	4	5	6	more than 6
Frequency	4	12	13	17	25	13	11	5

One of the 100 customers is chosen at random.

- (a) What is the probability that this customer went to the shop 5 or more times?

.....  
(2)

Last month the shop had a total of 1500 customers.

- (b) Work out an estimate for the number of customers who went to the shop exactly 2 times last month.

.....  
(2)

The owner of a different shop is carrying out a survey on the ages of his customers.  
He records the ages of the first 10 customers in his shop after 9 am one morning.

- (c) This may **not** be a suitable sample.  
Give **two** reasons why.

1.....

.....

2.....

.....

(2)

.....  
(Total for Question 8 is 6 marks)

Pearson Edexcel - Friday 13 June 2014 - Paper 2 (Calculator) Higher Tier

4.

23 (a) Explain what is meant by a stratified sample.

---

---

(1)

The table shows information about the ages of the people living in a village.

Age group	Number of people
Under 21	72
21–40	90
41–60	123
Over 60	314

Mrs Parrish carries out a survey of these people.  
She uses a sample size of 50 people stratified by age group.

(b) Work out the number of people over 60 years of age in the sample.

---

(2)

(Total for Question 23 is 3 marks)

---

1 Sam wants to find out the types of film people like best.

He is going to ask whether they like comedy films or action films or science fiction films or musicals best.

(a) Design a suitable table for a data collection sheet he could use to collect this information.

(2)

Sam collects his data by asking 10 students in his class at school.  
This might **not** be a good way to find out the types of film people like best.

(b) Give **one** reason why.

---

---

(1)

---

**(Total for Question 1 is 3 marks)**

---

24. (a) Explain what is meant by a random sample.

.....  
.....

(1)

Chris collects stamps from different countries.  
He has 245 stamps from France.

He wants to take a random sample of 10 of his stamps from France.

(b) Describe a method that Chris could use.

.....  
.....  
.....

(1)

The table shows information about Chris' collection of 662 stamps.

Country	France	Germany	Spain	Italy	Total
Number of stamps	245	184	138	95	662

Chris takes a sample of 50 stamps stratified by country.

(c) Work out the number of stamps from Italy in this sample.

.....

(2)

(Total 4 marks)

---

4. Frank did a survey on the areas of pictures in a magazine.

The magazine had 60 pages.

Frank worked out the area of each of the pictures in the first 2 pages.

This may not be a good method to do the survey.

Explain why.

.....  
.....

(Total 1 mark)

---

**OCR GSCE – Tuesday 2 November 2017 – Paper 4 (Calculator) Higher Tier**

**8.**

- 9 Here are the results of a survey of 437 people in a town.

- 62 males speak Spanish.
- 153 females do not speak Spanish.
- 280 people do not speak Spanish.

Jeff says

At least 2 out of every 5 females in the town can speak Spanish.

Is he correct?

Show clearly how you reached your decision.

