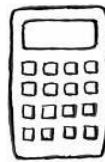


Name:

Teacher
Assessment



Section A **Organising Data** **Grade G → D**

1. The distances, to the nearest mile, that 20 people travel to work are recorded below.

5 2 4 14 19 6 21 28 3 14
44 12 18 4 7 32 16 8 13 9

(a) Complete the tally and frequency columns in the chart below.

Distance (miles)	Tally	Frequency
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 50		

(2)

(b) How many people travel between 11 and 20 miles to work?

.....

Answer

(1)

(c) A person is chosen at random from this group of 20 people.
What is the probability that this person travels between 1 and 10 miles to work?

.....

Answer

(1)

(Total 4 marks)

2. Michelle wants to find out if students buy lunch in the college restaurant, bring a packed lunch or go out of college for lunch.

(a) (i) Design an observation sheet for Michelle to record the data.

(2)

(ii) Complete your observation sheet by inventing data for 20 students.

(1)

(b) Michelle decides to stand outside the college restaurant at 12 noon to collect her data.

Give a reason why this is **not** a suitable place to carry out this survey.

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

(1)

(Total 4 marks)

3. Karin is collecting data about the number of brothers and the number of sisters of the people in her class.
Karin's results are given in the two-way table.

		Number of brothers			
		0	1	2	3
Number of sisters	0	6	7	1	2
	1	4	3	0	1
	2	1	2	1	0
	3	1	1	0	0

- (a) How many people have one brother?

.....

Answer

(2)

- (b) How many people have more brothers than sisters?

.....

.....

Answer

(2)(Total 4 marks)

4. Tina records this data in a survey about how students travel to school.

Gender	Method of travel
Girl	Bus
Boy	Walk
Girl	Car
Boy	Bus
Girl	Walk
Boy	Car
Girl	Bike
Boy	Walk
Girl	Walk
Girl	Walk

- (a) Complete this two-way table to show Tina's data.

	Walk	Other
Boy	2	
Girl		

(2)

- (b) Tina looks at her data.
She says it shows that girls are more likely to walk to school than boys.
Is this true?
Give a reason for your answer.

.....

.....

.....

.....

.....

(2)
(Total 4 marks)

5. The two-way table shows the age and sex of a sample of 20 pupils at a school.

	Age (years)			
	12	13	14	15
Number of boys	4	3	3	2
Number of girls	2	2	1	3

There are 1000 pupils in the school altogether.

- (a) Use the values in the table to estimate the number of boys in the school.

.....

.....

.....

Answer

(3)

- (b) How could a better estimate be obtained?

.....

.....

(1)
(Total 4 marks)

6. Jane conducts a survey of the favourite colours of the students in her class. She records the results.

Male	Red	Female	Yellow
Male	Yellow	Female	Red
Male	Red	Female	Green
Female	Green	Female	Green
Female	Red	Male	Red
Male	Green	Male	Yellow
Male	Green		

Record the results in a two-way table.

(Total 3 marks)

7. Emma reads in a magazine that there is a link between the number of children and the number of pets in a family.

- (a) Design a two-way table to record the number of pets and the number of children in a sample of families.

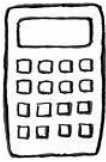
(3)

- (b) Complete your two-way table by inventing data for eight families.

(1)(Total 4 marks)

Success:

Target:



Section B **Data Collection** **Grade D / C**

1. The manager of Cost-U-Less supermarket wants to carry out a survey of her customers. She asks customers to complete a questionnaire.

(a) Here is one of the questions she asks:

“Don’t you agree that Cost-U-Less is the best supermarket?”

Write down **one** criticism of this question.

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

(1)

(b) Here is another part of her questionnaire.

Question How much do you spend at Cost-U-Less?			
Response (tick one box)			
Under £10 <input type="checkbox"/>	Under £20 <input type="checkbox"/>	Under £50 <input type="checkbox"/>	Under £100 <input type="checkbox"/>

Write down **one** criticism of the question and **one** criticism of the response section.

Criticism of question

.....
.....

Criticism of response section

.....
.....

(2)

(c) The manager collects her data by asking 100 shoppers who visit the supermarket on Friday evening. Explain why this sample may not be representative of all the shoppers who use this supermarket.

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

(1)(Total 4 marks)

2. Joe carries out a survey about fast foods.
This is one of his questions.

Do you agree that eating fast foods is unhealthy?

This question is **not** suitable. Rewrite the question so that it is suitable. Include response boxes.

.....

.....

.....

.....

(Total 2 marks)

3. Dan and Doris are doing a survey on the type of music people buy.

- (a) This is one question from Dan's survey.

Classical music is just for snobbish people.
Don't you agree?
Tick (✓) a box.

Strongly agree Agree Don't know

Give two criticisms of Dan's question.

Criticism 1

.....

Criticism 2

.....

(2)

- (b) This is a question from Doris' survey.

Do you buy CDs? Yes No

If yes, how many CDs do you buy on average each month?

2 or less 3 or 4 5 or 6 More than 6

Give two reasons why this is a good question.

Reason 1

.....

Reason 2

.....

(2)

(Total 4 marks)

4. Mandip is doing a survey on “Healthy Eating” in the town where he lives.

(a) Give **one** reason why he should **not** do the survey outside the sports centre.

.....
.....

(1)

(b) One of the questions he asks is “Do you eat fruit or sweets?”

Explain why this is a poorly worded question.

.....
.....

(1)

(c) There are 2000 people in the town where Mandip lives.
He interviews 15 people for his survey.

Explain why his survey may not be representative of the people in the town.

.....
.....

(1)

(Total 3 marks)

5. Nadia delivers a questionnaire to every house on her street.
One of the questions on the questionnaire is

“Do you agree that under-16s should not be allowed outdoors after 9 pm?”

(a) (i) Write down **one** criticism of this question.

.....
.....

(1)

(ii) Explain why Nadia’s method of collecting data is **not** suitable.

.....
.....

(1)

(b) Write a suitable question asking parents what they think is the latest time that under-16s should be indoors. Include a response section.

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

(2)(Total 4 marks)

6. Chandni wants to survey pupils in her school about their reading habits.

- (a) Write a question that would help Chandni to investigate how often pupils in her school read for pleasure.

Include a response section.

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

(2)

- (b) There are 1000 pupils in Chandni's school.

Chandni samples 50 pupils at random and asks them to complete her survey.
She finds that 16 of the pupils in the sample read comics.
Estimate the number of pupils in the school who read comics.

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

Answer

(2)

(Total 4 marks)

7. A survey is to be carried out to investigate the shopping habits of the population of a town.

- (a) Give **two** reasons why the survey should **not** be carried out between 9am and 5pm on a Wednesday.

Reason 1

.....

.....

Reason 2

.....

.....

(2)

- (b) Write **two** suitable questions that could be asked in the survey.

Question 1

.....

.....

Question 2

.....

.....

(2)

(Total 4 marks)

Success:

Target:
