

Name: _____

GCSE (1 – 9)

Two Way Tables

Instructions

- Use **black** ink or ball-point pen.
- Answer all Questions.
- Answer the Questions in the spaces provided
– *there may be more space than you need.*
- Diagrams are **NOT** accurately drawn, unless otherwise indicated.
- You must **show all your working out.**

Information

- The marks for each Question are shown in brackets
– *use this as a guide as to how much time to spend on each Question.*

Advice

- Read each Question carefully before you start to answer it.
- Keep an eye on the time.
- Try to answer every Question.
- Check your answers if you have time at the end

1 The two way table gives information about how 100 students travelled to school.

	Walk	Car	Other	Total
Boys	15	26	11	52
Girls	18	22	8	48
Total	33	48	19	100

(a) Complete the two way table.

(3)

One of the students is picked at random.

(b) Write down the probability they walk to school.

$$\frac{33}{100}$$

(1)

(Total for question 1 is 4 marks)

2 The two way table gives information about the favourite sport of 150 students.

	Football	Rugby	Other	Total
Boys	35	17	21	73
Girls	42	4	31	77
Total	77	21	52	150

Complete the two way table.

(Total for question 2 is 3 marks)

3 The two way table gives information about the favourite subject of 200 students.

	Maths	English	Other	Total
Year 10	41	31	26	98
Year 11	47	10	45	102
Total	88	41	71	200

(a) Complete the two way table.

(3)

One of the students is picked at random.

(b) Write down the probability they are a year 10 student whose favourite subject is maths.

$$\frac{41}{200}$$

(1)

(Total for question 3 is 4 marks)

- 4 There are 170 students in year 7 at a school.
All of these students either walk to school, get the bus to school or cycle to school.

82 of the students are boys.
33 of the students get the bus to school.
19 of the 41 students that walk to school are boys.
56 girls cycle to school.

Complete the two way table.

	Walk	Bus	Cycle	Total
Boys	19	23	40	82
Girls	22	10	56	88
Total	41	33	96	170

(Total for question 4 is 3 marks)

- 5 A football team played 38 games.
19 games were played at home and the rest were played away.

The team won a total of 21 games.
They drew 4 games away.
2 of the 10 games they lost were at home.

Complete the two way table.

	Won	Drawn	Lost	Total
Home	14	3	2	19
Away	7	4	8	19
Total	21	7	10	38

(Total for question 5 is 3 marks)

6 100 students attended a revision lesson at the weekend.

Each student went to Maths or English or Science.

55 of these students attended on Saturday.

Over the weekend a total of 40 students went to Maths.

12 of the 27 students that went to Science went on Sunday.

10 students went to English on Saturday.

How many students went to the Maths revision lesson on Saturday?

	Maths	English	Science	Total
Saturday	30	10	15	55
Sunday	10	23	12	45
Total	40	33	27	100

.....30.....

(Total for question 6 is 4 marks)

7 120 students are asked whether they like biology or chemistry or physics best.

52 of the students are in year 11, the rest are in year 10.

45 students like physics best.

20 of the year 11 students like biology best

16 of the 30 students who like chemistry best are in year 10.

Work out how many year 10 students like physics best.

	Biology	Chemistry	Physics	Total
Year 10	25	16	27	68
Year 11	20	14	18	52
Total	45	30	45	120

27

(Total for question 7 is 4 marks)

8 100 students in year 7 either study French or German or Spanish.

45 of the students are boys and the rest are girls.

12 boys study German.

15 boys and 17 girls study French.

A total of 30 students study Spanish.

Work out how many girls study Spanish.

	French	German	Spanish	Total
Boys	15	12	18	45
Girls	17	26	12	55
Total	32	38	30	100

12

(Total for question 8 is 4 marks)

9 Two different schools, school A and school B, attended a conference.

12% of the attendees were teachers, the rest were students.

47% of the attendees were from school A.

48% of the attendees were **students** from school B.

One of the attendees is selected at random.

Find the probability that they are a teacher from school A.

	Students	Teachers	Total
School A	40	7	47
School B	48	5	53
Total	88	12	100

7%

(Total for question 9 is 4 marks)

OR $\frac{7}{100}$ OR 0.07

10 300 students are asked how they get to school.

All of the students either walk to school or get the bus to school.

58% of the students walk to school. 174 $[0.58 \times 300 = 174]$

45% of the students are boys. 135 $[0.45 \times 300 = 135]$

21% of the boys get the bus to school. 63 $[0.21 \times 300 = 63]$
students are

Work out how many girls walk to school.

	Walk	Bus	Total
Boys	72	63	135
Girls	102	63	165
Total	174	126	300

.....
102

(Total for question 10 is 4 marks)