



**Bishops
Online
Tutoring**



Education Consultancy

Edexcel GCSE Mathematics

TWO-WAY TABLES

Materials Required:

- Pen
- HB Pencil
- Ruler (in centimetres and millimetres)
- Protractor
- Compass

Information:

- The marks allocated for each question are displayed within brackets – utilise this information to gauge the appropriate amount of time to dedicate to each question
- Questions marked with an asterisk (*) will assess your written communication; be careful of spelling, punctuation and grammar with these questions

Instructions:

- Use a black ink pen to answer all questions
- Fill your name in the section below
- Answer the questions in the spaces provided
- Show your working out for all answers

Advice:

- Carefully read the question before attempting to answer it
- Be vary of time and try to answer every question
- If you have enough time in the end, go back and check your answers. A good way to check your answers is to retry the question with the hope of getting the same answer as before without looking at your working out from before

NO CALCULATOR ALLOWED

NAME:

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1. The two-way table shows some information about the number of students in a school.

	Year Group			Total
	9	10	11	
Boys			125	407
Girls		123		
Total	303	256		831

Complete the two-way table.

(3 marks)

2. A factory makes three sizes of bookcase.
The sizes are small, medium and large.

Each bookcase can be made from pine or oak or yew.

The two-way table shows some information about the number of bookcases the factory makes in one week.

	Small	Medium	Large	Total
Pine	7			23
Oak		16		34
Yew	3	8	2	13
Total	20		14	

Complete the two-way table.

(3 marks)

3. The two-way table gives some information about how 100 children travelled to school one day.

	Walk	Car	Other	Total
Boy	15		14	54
Girl		8	16	
Total	37			100

- (a) Complete the two-way table.

(3)

One of the children is picked at random.

- (b) Write down the probability that this child walked to school that day.

.....

(1)

One of the girls is picked at random.

- (c) Work out the probability that this girl did **not** walk to school that day.

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(2)

(6 marks)

4. The two-way table gives some information about what 100 children ate at school one day.

	Beef	Chicken	Fish	Total
Boy	19		17	53
Girl		14	25	
Total	27			100

- (a) Complete the two-way table.

(3)

One of the children is picked at random.

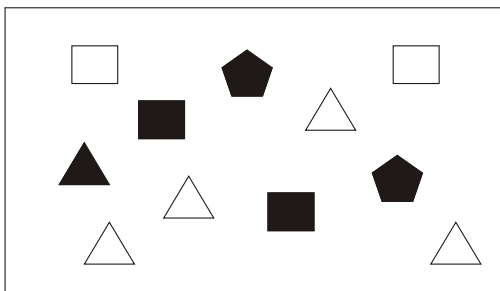
- (b) Write down the probability that the child selected is a boy who ate chicken.

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(1)

(4 marks)

5.



The diagram shows some 3-sided, 4-sided and 5-sided shapes.

The shapes are black or white.

(a) Complete the two-way table. (3)

	Black	White	Total
3-sided shape		4	5
4-sided shape	2		
5-sided shape		0	
Total			11

Ed takes a shape at random.

(b) Write down the probability the shape is white **and** 3-sided.

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(2)

(5 marks)

6. The two-way table shows some information about the number of boys, girls and teachers at three schools.

	School A	School B	School C	Total
Boys	85	29	54	
Girls		31	47	171
Teachers	13	5		
Total	191			366

Complete the two-way table.

(4 marks)

7. 80 children went on a school trip.
They went to London or to York.

23 boys and 19 girls went to London.
14 boys went to York.

- (a) Use this information to complete the two-way table.

	London	York	Total
Boys			
Girls			
Total			

(3)

One of these 80 children is chosen at random.

- (b) What is the probability that this child went to London?

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(1)

(4 marks)

8. Felicity asked 100 students how they came to school one day.
Each student walked or came by bicycle or came by car.

49 of the 100 students are girls.

10 of the girls came by car.

16 boys walked.

21 of the 41 students who came by bicycle are boys.

Work out the total number of students who walked to school.

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(4 marks)

9. Janice asks 100 students if they like biology or chemistry or physics best.

38 of the students are girls.

21 of these girls like biology best.

18 boys like physics best.

7 out of the 23 students who like chemistry best are girls.

Work out the number of students who like biology best.

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(4 marks)

10. 56 students were asked if they watched tennis yesterday.
20 of the students are boys.
17 girls watched tennis yesterday.
32 students did not watch tennis yesterday

One of these students is to be chosen at random.

Write down the probability that the student chosen will be a boy who watched tennis yesterday.
Give your answer as a fraction in its simplest form.

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(4 marks)