

Two-Way Tables

For Pearson Edexcel GCSE Mathematics (1MA1) • Foundation tier

Name _____

Total marks: **26**

Answer **all** questions in the spaces provided. Show your working: marks are given for correct method.

1 The two-way table shows information about the lunches of 90 students.

	School dinner	Packed lunch	Total
Year 9	28	17	45
Year 10	21	24	45
Total	49	41	90

(a) How many of the Year 10 students have a packed lunch?

.....
(1)

(b) How many of the students have a school dinner?

.....
(1)

(c) One of the students is chosen at random.
Write down the probability that this student is in Year 9 and has a packed lunch.

.....
(1)

(Total for Question 1 is 3 marks)

- 2** 90 students went on a school trip to London, Paris or York.
40 of the students are boys.
12 of the boys went to London.
20 of the girls went to Paris.
26 students went to York.
15 of the boys went to York.

Use this information to complete the two-way table.

	London	Paris	York	Total
Boys				
Girls				
Total				

(3)

(Total for Question 2 is 3 marks)

- 3** 150 people used a leisure centre one day.
Each person went for a swim, used the gym or went to a class.
The two-way table shows some information about these people.

(a) Complete the two-way table.

	Swim	Gym	Class	Total
Under 30	18			70
30 and over		34		
Total	40	65		150

(3)

- (b) One of these people is chosen at random.
Write down the probability that this person is aged 30 and over and went to the gym.

.....
(1)

(Total for Question 3 is 4 marks)

- 4** There are 70 books on a library display.
 Each book is fiction or non-fiction.
 Each book is a paperback or a hardback.
 $\frac{3}{5}$ of the books are paperbacks.
 30 of the fiction books are paperbacks.
 11 of the hardbacks are non-fiction.

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

	Paperback	Hardback	Total
Fiction			
Non-fiction			
Total			

(3)

- (b) One of the books is chosen at random.
 Write down the probability that this book is a non-fiction paperback.

.....

(1)

(Total for Question 4 is 4 marks)

5 The two-way table shows information about the people at a concert.

	Men	Women	Children
Seated	20	35	18
Standing	12	13	22

Work out the percentage of the adults who are women.

..... %
(3)
(Total for Question 5 is 3 marks)

- 6** 240 members of a sports club were asked which sport they play most.
 Each member chose tennis, squash or badminton.
 $\frac{1}{3}$ of the members are juniors. The rest are seniors.
 45 of the seniors chose tennis.
 70 members chose squash.
 22 of the juniors chose squash.
 95 members chose badminton.

(a) Complete the two-way table.

	Tennis	Squash	Badminton	Total
Juniors				
Seniors				
Total				240

(3)

- (b) One of the seniors is chosen at random.
 Find the probability that this senior chose badminton.

.....

(2)

(Total for Question 6 is 5 marks)

- 7** 120 students each chose one activity for an activities week: climbing, sailing or cycling.
50 of the students are in Year 8. The rest are in Year 9.
44 students chose climbing.
19 of the students who chose climbing are in Year 8.
Twice as many Year 9 students chose cycling as chose sailing.

One of the Year 9 students is chosen at random.

What is the probability that this student chose sailing?

.....
(4)

(Total for Question 7 is 4 marks)
