

Two-Way Tables

For AQA GCSE Mathematics (8300) • Foundation tier

Name _____

Total marks: **25**

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

- 1** The table shows when 120 visitors arrived at a museum one day.

	Morning	Afternoon	Evening	Total
Adults	28	30	12	70
Children	20	24	6	50

- (a) What fraction of the adults arrived in the morning?
Give your answer in its simplest form.

[2 marks]

Answer _____

- (b) One of the children is chosen at random.
What is the probability that this child arrived in the afternoon?

[1 mark]

Answer _____

- (c) What percentage of the 120 visitors arrived in the evening?

[2 marks]

Answer _____ %

2 A cinema recorded the snack bought by each of 150 customers.

(a) Complete the table.

	Popcorn	Nachos	Ice cream	Total
Adults	38		15	80
Children		12		
Total	68			150

[3 marks]

(b) One of the customers is picked at random.

Work out the probability that the customer is a child who bought ice cream.

[1 mark]

Answer _____

3 The table shows the meals chosen by some students.

	Meat	Vegetarian	Fish
Boys	20	12	8
Girls	14	15	11

Is it true that more than half of the students who had the vegetarian meal were girls?

Tick a box.

You must show your working.

[2 marks]

☐ Yes

☐ No

- 4 There are 90 cars in a car park.
Each car is electric or petrol.
Each car is silver or white.
36 of the cars are electric.
40 of the cars are silver.
22 of the petrol cars are white.

- (a) How many of the electric cars are silver?
You may use the table to help you.

	Silver	White	Total
Electric			
Petrol			
Total			

[3 marks]

Answer _____

- (b) What fraction of the white cars are electric?

[1 mark]

Answer _____

- 5** There are 72 chocolates in a box.
 The chocolates are milk or dark and have hard or soft centres.
 $\frac{5}{9}$ of the chocolates have soft centres.
 There are twice as many milk chocolates as dark chocolates.
 9 of the dark chocolates have soft centres.

(a) Complete the two-way table.

	Hard centre	Soft centre	Total
Milk			
Dark		9	
Total			72

[4 marks]

- (b) One chocolate is chosen at random.
 What is the probability that it is a dark chocolate with a soft centre?

[1 mark]

Answer _____

- (c) One chocolate is chosen at random.
 What is the probability that it has a hard centre?

[1 mark]

Answer _____

- 6** A theatre sold 240 tickets for a show.
Each ticket was for the stalls or the balcony.
Each ticket was an adult ticket or a child ticket.
 $\frac{3}{8}$ of the tickets were for the balcony.
40% of the tickets were child tickets.
28 of the balcony tickets were child tickets.

How many adult tickets were for the stalls?
You may use the two-way table to help you.

	Stalls	Balcony	Total
Adult			
Child		28	
Total			240

[4 marks]

Answer _____