

GCSE QUESTIONS WITH CLUES

Q1. NON-CALCULATOR

Complete the two-way table.

- First
- Second
- Third

	blue eyes	brown eyes	green eyes	total
boys	5		4	12
girls		7		
total			9	30

18-7-5 5+6 3+7 12-4-5 9-4 ← 30-12

(Total for question is 3 marks)

Q2. NON-CALCULATOR

Emma has 45 rabbits.

30 of the rabbits are male.

8 of the female rabbits have short hair.

12 of the rabbits with long hair are male.

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

	Male	Female	Total
Long hair	12		
Short hair		8	
Total	30		45

15-8 ← 12+7 ← 45-19
30-12 45-30

(3)

One of Emma's rabbits is chosen at random.

(b) Write down the probability that this rabbit is a female with short hair.

$$p(\text{female with short hair}) = \frac{\text{Females with short hair}}{\text{Total}}$$

(1)

(Total for question = 4 marks)

Q3. NON-CALCULATOR

There are 40 students in a class.

Each student walks to school or cycles to school or gets the bus to school.

There are 22 girls in the class.

9 of the girls walk to school.

7 of the boys cycle to school.

6 of the 10 students who get the bus to school are boys.

Find the number of these students who walk to school.

	Boys	Girls	TOTAL
Walk		9	
Cycle	7		
Bus	6		10
TOTAL		22	40

Handwritten calculations and arrows:

- $18 - 7 - 6$ (with an arrow pointing to the Boys cell in the Walk row)
- $40 - 22$ (with an arrow pointing to the Boys cell in the Bus row)
- $5 + 9$ (with an arrow pointing to the TOTAL cell in the Walk row)

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(Total for question = 4 marks)

Q4. CALCULATOR ALLOWED

60 people were asked if they prefer to go on holiday in Britain or in Spain or in Italy.

38 of the people were male.

11 of the 32 people who said Britain were female.

8 males said Italy.

12 people said Spain.

One of the females is chosen at random.

What is the probability that this female said Spain?

	Britain	Spain	Italy	TOTAL
Male			8	38
Female	11			
TOTAL	32	12		60

Handwritten calculations and annotations:

- $32 - 11$ (points to the empty cell for Male in Britain)
- $38 - 21 - 8$ (points to the empty cell for Female in Spain)
- $12 - 9$ (points to the empty cell for Male in Italy)
- $60 - 38$ (points to the empty cell for Female in the TOTAL column)

(Total for question = 4 marks)

Q5. CALCULATOR ALLOWED

100 adults were asked how they keep fit.

Each adult goes to the gym or runs or cycles.

45 of these adults are female.

30 of the 52 adults who go to the gym are female.

35 adults run.

9 males cycle.

How many females run?

	Gym	Run	Cycle	TOTAL
Male			9	
Female	30			45
TOTAL	52	35		100

Handwritten calculations and annotations:

- $45 - 30 - 4$ (points to the empty cell for Female in Run)
- $100 - 52 - 35$ (points to the empty cell for Male in Cycle)
- $13 - 9$ (points to the empty cell for Male in the TOTAL column)

(Total for question = 3 marks)