

# Frequency Tables

For AQA GCSE Mathematics (8300) • Foundation tier

Name \_\_\_\_\_

Total marks: **22**

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

**1** Here are the colours of 20 cars in a car park.

|        |       |        |        |       |
|--------|-------|--------|--------|-------|
| red    | blue  | silver | red    | black |
| silver | blue  | silver | red    | white |
| silver | black | silver | blue   | red   |
| silver | white | blue   | silver | red   |

(a) Complete the frequency table.

| Colour | Tally | Frequency |
|--------|-------|-----------|
| Red    |       |           |
| Blue   |       |           |
| Silver |       |           |
| Black  |       |           |
| White  |       |           |

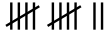
**[2 marks]**

(b) Write down the modal colour.

**[1 mark]**

Answer \_\_\_\_\_

- 2 Ravi uses a tally chart to record the birds that visit his garden feeder in one morning. Each 5-bar gate (  ) represents 5 birds.

| Bird     | Tally                                                                              |
|----------|------------------------------------------------------------------------------------|
| Sparrow  |  |
| Robin    |   |
| Blue tit |   |
| Starling |   |

- (a) How many blue tits visited the feeder?

[1 mark]

Answer \_\_\_\_\_

- (b) Ravi says,

“More than one third of the birds that visited the feeder were sparrows.”

Is he correct? Tick a box.

Show working to support your answer.

[2 marks]

☐ Yes

☐ No

**3** Here are the test marks of 15 students.

12 25 33 8 17 21 30 26 3 38 19 28 10 36 20

(a) Complete the frequency table.

| Mark     | Frequency |
|----------|-----------|
| 1 to 10  |           |
| 11 to 20 |           |
| 21 to 30 |           |
| 31 to 40 |           |

[2 marks]

(b) Which group has the highest frequency?

[1 mark]

Answer \_\_\_\_\_

- 4 Ella measures the lengths, in cm, of 20 leaves.  
Here are her results.

7.2 4.1 9.8 12.6 5.6 10.3 3.9 6.7 13.1 8.3  
2.4 11.5 7.9 4.8 9.2 6.1 10.7 5.3 12.2 8.8

Ella makes this table to group the lengths.

| Length (cm) | Tally | Frequency |
|-------------|-------|-----------|
| 3 to 5      |       |           |
| 6 to 8      |       |           |
| 9 to 11     |       |           |
| 12 to 14    |       |           |

Write down **two** things that are wrong with Ella's groups.

[2 marks]

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- 5 The table shows the times,  $t$  minutes, that some people waited at a doctor's surgery.

| Time, $t$ (minutes) | Frequency |
|---------------------|-----------|
| $0 < t \leq 10$     | 7         |
| $10 < t \leq 20$    | 12        |
| $20 < t \leq 30$    | 9         |
| $30 < t \leq 40$    | 2         |

- (a) Tom says a time of exactly 20 minutes goes in the class  $10 < t \leq 20$   
Is he correct? Tick a box.  
Give a reason for your answer.

[1 mark]

☐ Yes      ☐ No

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- (b) How many people waited more than 20 minutes?

[1 mark]

Answer \_\_\_\_\_

- (c) Which class interval contains the median?  
You must show your working.

[2 marks]

Answer \_\_\_\_\_

- 6 40 students each chose their favourite fruit.  
The table shows some information about their choices.

| Fruit  | Frequency |
|--------|-----------|
| Apple  | 11        |
| Orange | 8         |
| Banana |           |
| Pear   |           |

Twice as many students chose banana as chose pear.  
Complete the table.

[3 marks]

- 7 The table shows the number of goals scored in each of 30 football matches.

| Goals     | 0 | 1 | 2 | 3 | 4 |
|-----------|---|---|---|---|---|
| Frequency | 4 | 9 |   | 5 | 3 |

- (a) Work out the number of matches with 2 goals.

[2 marks]

Answer \_\_\_\_\_

- (b) Work out the total number of goals scored.

[2 marks]

Answer \_\_\_\_\_