

GCSE Exam Questions on Frequency Tables

Question 1. (AQA June 2005 Intermediate Paper 2 Calculator OK)

The number of goals scored in 15 hockey matches is shown in the table.

| Number of goals | Number of matches |
|-----------------|-------------------|
| 1 | 2 |
| 3 | 1 |
| 5 | 5 |
| 6 | 3 |
| 9 | 4 |

Calculate the mean number of goals scored.

[3 marks]

Question 2. (AQA June 2007 Intermediate Paper 2 Calculator OK)

The table shows the heights of 30 students in a class.

| Height, h , (cm) | Number of students |
|--------------------|--------------------|
| $140 < h \leq 144$ | 4 |
| $144 < h \leq 148$ | 5 |
| $148 < h \leq 152$ | 8 |
| $152 < h \leq 156$ | 7 |
| $156 < h \leq 160$ | 5 |
| $160 < h \leq 164$ | 1 |

By using the midpoints of each group, calculate an estimate of the mean height.

[3 marks]

GCSE Exam Questions on Frequency Tables

Question 3. (AQA November 2004 Intermediate Paper 2 Calculator OK)

The National Curriculum levels in Mathematics for 30 students in Year 9 were recorded.

| Level | Number of students |
|-------|--------------------|
| 3 | 0 |
| 4 | 4 |
| 5 | 4 |
| 6 | 9 |
| 7 | 8 |
| 8 | 5 |

Calculate the mean level in Mathematics for these students.

[3 marks]

Question 4. (AQA November 2006 Intermediate Paper 2 Calculator OK)

The number of eggs in 90 nests is shown in the table.

| Number of eggs per nest | Frequency |
|-------------------------|-----------|
| 0 | 10 |
| 1 | 16 |
| 2 | 35 |
| 3 | 15 |
| 4 | 14 |

Calculate the mean number of eggs per nest.

[3 marks]

GCSE Exam Questions on Frequency Tables

Question 5. (AQA November 2007 Intermediate Paper 2 Calculator OK)

A road has 30 houses.

The number of letters delivered to each house on one day is given in the frequency table.

| Number of letters | Frequency |
|-------------------|-----------|
| 0 | 4 |
| 1 | 6 |
| 2 | 4 |
| 3 | 3 |
| 4 | 7 |
| 5 | 6 |

(a) Calculate the mean number of letters delivered to each house.

[3 marks]

(b) A house is chosen at random. What is the probability that it has more than 3 letters delivered to it?

[2 marks]

Question 6. (Edexcel iGCSE June 2004 Higher Paper 3 Calculator OK)

The grouped frequency table gives information about the distance each of 150 people travel to work.

| Distance travelled (d km) | Frequency |
|---------------------------------|-----------|
| $0 < d \leq 5$ | 34 |
| $5 < d \leq 10$ | 48 |
| $10 < d \leq 15$ | 26 |
| $15 < d \leq 20$ | 18 |
| $20 < d \leq 25$ | 16 |
| $25 < d \leq 30$ | 8 |

(a) Work out what percentage of the 150 people travel more than 20 km to work.

[2 marks]

(b) Calculate an estimate for the mean distance travelled to work by the people?

[4 marks]

Question 7. (Edexcel iGCSE June 2006 Higher Paper 3 Calculator OK)

Robin fired 15 arrows at a target. The table shows information about his scores.

GCSE Exam Questions on Frequency Tables

| Score | Frequency |
|-------|-----------|
| 1 | 6 |
| 2 | 3 |
| 3 | 1 |
| 4 | 1 |
| 5 | 4 |

(a) Find his median score

[2 marks]

(b) Work out his mean score

[3 marks]

Question 8. (Edexcel iGCSE June 2007 Higher Paper 3 Calculator OK)

Hajra counted the numbers of sweets in 20 packets.

The table shows information about her results.

| Number of sweets | Frequency |
|------------------|-----------|
| 46 | 3 |
| 47 | 6 |
| 48 | 3 |
| 49 | 5 |
| 50 | 2 |
| 51 | 1 |

Work out the mean number of sweets in the 20 packets.

[3 marks]

GCSE Exam Questions on Frequency Tables

Question 9. (Edexcel iGCSE June 2008 Higher Paper 3 Calculator OK)

The table shows information about the pulse rates of 60 people, when they were resting.

| Pulse rate (p beats/min) | Frequency |
|--------------------------------|-----------|
| $50 < p \leq 60$ | 7 |
| $60 < p \leq 70$ | 21 |
| $70 < p \leq 80$ | 15 |
| $80 < p \leq 90$ | 14 |
| $90 < p \leq 100$ | 3 |

(a) Write down the modal class

[1 mark]

(b) Work out an estimate of the mean pulse rate for the 60 people

[4 marks]

Question 10. (Edexcel iGCSE November 2004 Higher Paper 3 Calculator OK)

The table shows information about the ages of 24 students.

| Age (years) | Number of students |
|-------------|--------------------|
| 16 | 9 |
| 17 | 3 |
| 18 | 8 |
| 19 | 4 |

(a) Write down the mode of these ages.

[1 mark]

(b) Find the median of these ages.

[2 marks]

(b) Calculate the mean of these ages.

[3 marks]

GCSE Exam Questions on Frequency Tables

Question 11. (Edexcel iGCSE November 2006 Higher Paper 3 Calculator OK)

The table shows information about the ages of students in a school.

| Age, x years | Frequency |
|------------------|-----------|
| $9 \leq x < 11$ | 30 |
| $11 \leq x < 13$ | 12 |
| $13 \leq x < 15$ | 18 |
| $15 \leq x < 19$ | 60 |

Calculate an estimate of the mean age of these students.
Give your answer to 3 significant figures.

[4 marks]

Question 12. (AQA June 2003 Higher Paper 2 Calculator OK)

Jane records the times taken by 30 pupils to complete a number puzzle.

| Time, t (minutes) | Number of pupils |
|---------------------|------------------|
| $2 < t \leq 4$ | 3 |
| $4 < t \leq 6$ | 6 |
| $6 < t \leq 8$ | 7 |
| $8 < t \leq 10$ | 8 |
| $10 < t \leq 12$ | 5 |
| $12 < t \leq 14$ | 1 |

(a) Calculate an estimate of the mean time taken to complete the puzzle.

[4 marks]

(b) Which time interval contains the median time to complete the puzzle?

[1 mark]

GCSE Exam Questions on Frequency Tables

Question 13. (AQA June 2007 Higher Paper 2 Calculator OK)

A quiz has five questions.

The table shows the number of correct answers given by the people who took the quiz.

| Number of correct answers | Number of people |
|---------------------------|------------------|
| 0 | 6 |
| 1 | 10 |
| 2 | 13 |
| 3 | 21 |
| 4 | 49 |
| 5 | 1 |

(a) Calculate the mean number of correct answers. You **must** show your working.

[4 marks]

(b) A mark of 4 is given for every correct answer. A mark of -1 is given for every blank or incorrect answer. Find the mean mark.

[2 marks]

Question 14. (AQA November 2006 Higher Paper 2 Calculator OK)

A survey was taken of the amount of money spent at a supermarket by 100 shoppers on a Monday. The table shows the results.

| Amount spent, m , (£) | Frequency |
|-------------------------|-----------|
| $0 < m \leq 40$ | 18 |
| $40 < m \leq 80$ | 34 |
| $80 < m \leq 120$ | 40 |
| $120 < m \leq 160$ | 8 |

Which class interval contains the median amount? You must show your working.

[2 marks]

GCSE Exam Questions on Frequency Tables

Question 15. (AQA November 2007 Higher Paper 2 Calculator OK)

The table shows the heights of 40 students.

| Height, h (cm) | Number of students | Midpoint | |
|--------------------|--------------------|----------|--|
| $140 < h \leq 144$ | 6 | 142 | |
| $144 < h \leq 148$ | 10 | | |
| $148 < h \leq 152$ | 7 | | |
| $152 < h \leq 156$ | 9 | | |
| $156 < h \leq 160$ | 6 | | |
| $160 < h \leq 164$ | 2 | | |

Calculate an estimate of the mean height of the students.

[3 marks]