



EXAM PAPERS PRACTICE

GCSE OCR Math J560

Frequency Polygons

Question Paper

*"We will help you to
achieve A Star "*

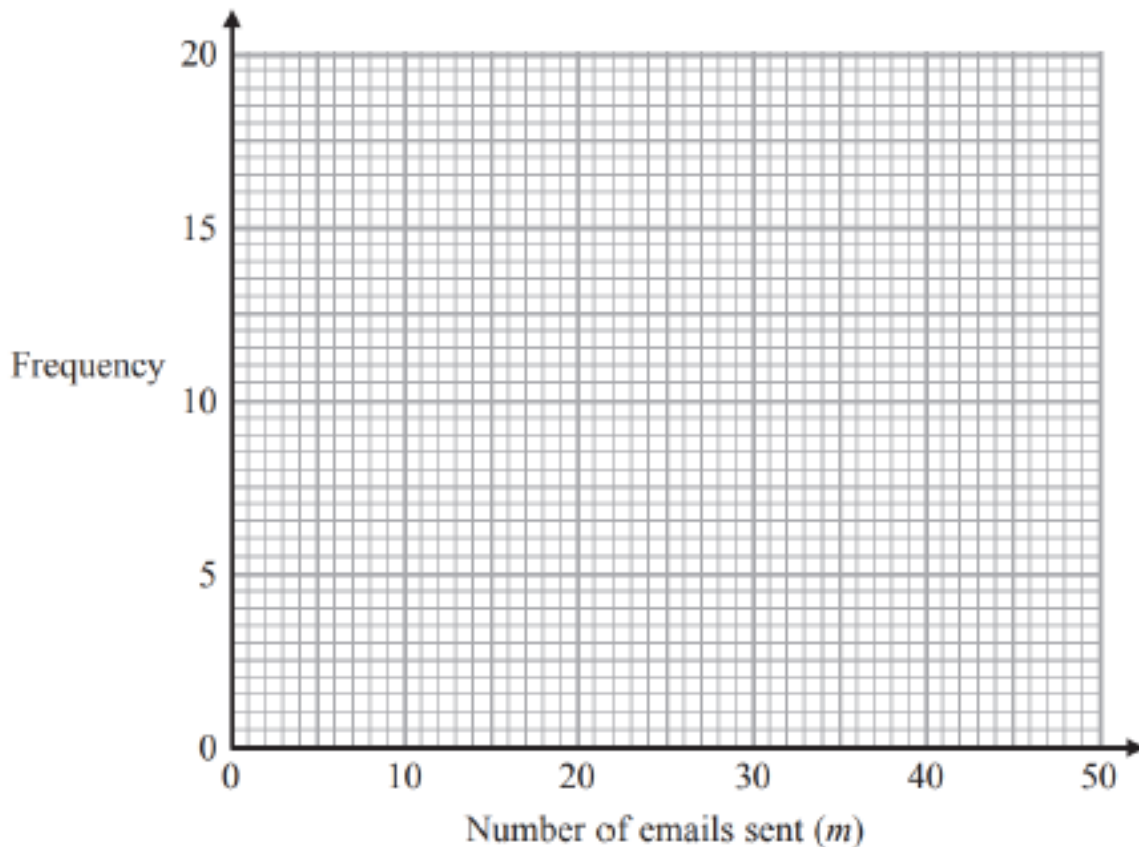


Question 1

The frequency table gives information about the numbers of emails sent by 51 teachers on Monday.

| Number of emails sent (m) | Frequency |
|-------------------------------|-----------|
| $0 < m \leq 10$ | 5 |
| $10 < m \leq 20$ | 17 |
| $20 < m \leq 30$ | 14 |
| $30 < m \leq 40$ | 9 |
| $40 < m \leq 50$ | 6 |

(a) On the grid below, draw a frequency polygon for this information.



[2 marks]



Question 2

The table shows some information about the ages of 60 teachers.

| Age (a years) | Frequency |
|------------------|-----------|
| $20 < a \leq 30$ | 6 |
| $30 < a \leq 40$ | 16 |
| $40 < a \leq 50$ | 14 |
| $50 < a \leq 60$ | 22 |
| $60 < a \leq 70$ | 2 |

(a) Write down the modal class interval.

[1 mark]

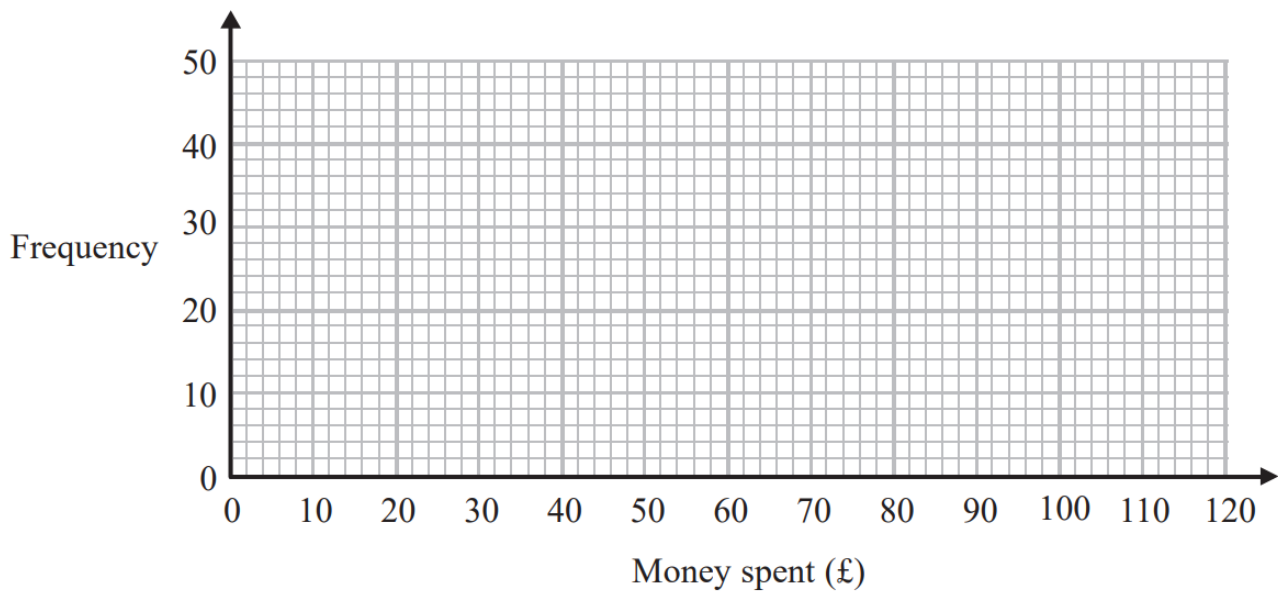


Question 3

The table gives information about the money, £ A , some people spent on an internet site one day.

| Money spent (£ A) | Frequency |
|----------------------|-----------|
| $0 < A \leq 20$ | 10 |
| $20 < A \leq 40$ | 15 |
| $40 < A \leq 60$ | 25 |
| $60 < A \leq 80$ | 40 |
| $80 < A \leq 100$ | 6 |

(a) On the grid, draw a frequency polygon for this information.



[2 marks]

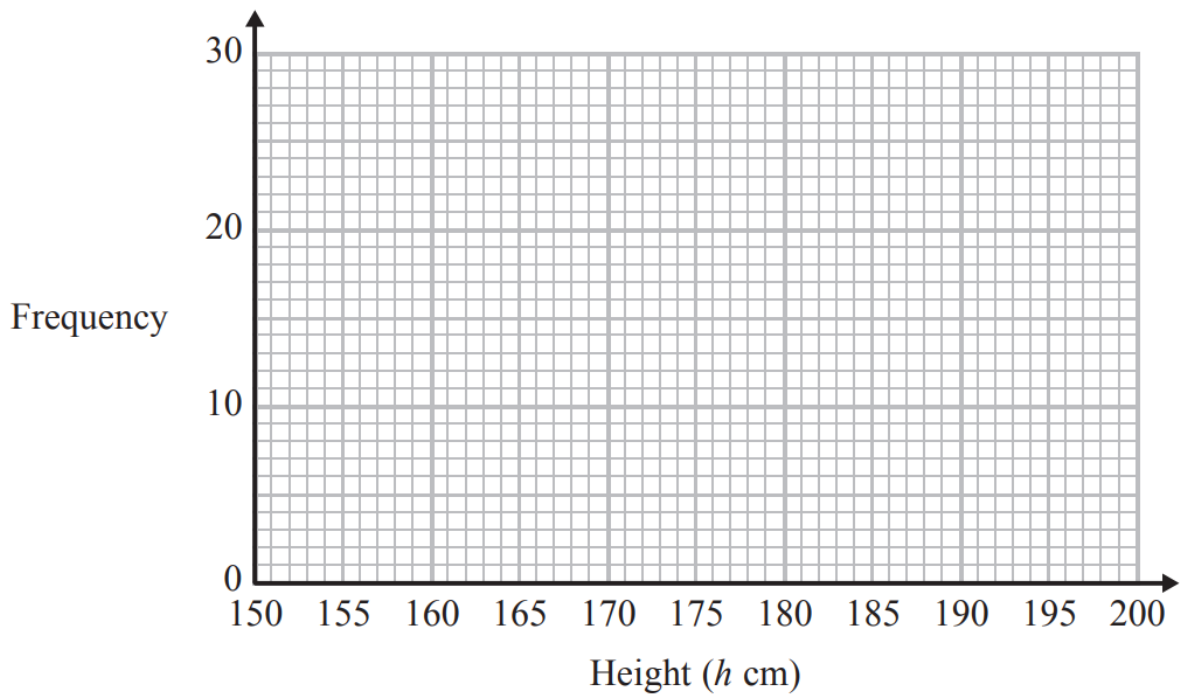


Question 4

The frequency table gives information about the heights of some people.

| Height (h cm) | Frequency |
|--------------------|-----------|
| $160 < h \leq 165$ | 2 |
| $165 < h \leq 170$ | 5 |
| $170 < h \leq 175$ | 10 |
| $175 < h \leq 180$ | 21 |
| $180 < h \leq 185$ | 16 |
| $185 < h \leq 190$ | 4 |

Draw a frequency polygon for this information.



[2 marks]



Question 5

*(b) Nalini says that at least a quarter of these teachers sent more than 30 emails.

Is Nalini correct?

You must explain your answer.

[2 marks]

Question 6

(b) Write down the modal class interval.

[1 mark]

Question 7

The table shows information about the heights of 80 children.

| Height (h cm) | Frequency |
|--------------------|-----------|
| $130 < h \leq 140$ | 4 |
| $140 < h \leq 150$ | 11 |
| $150 < h \leq 160$ | 24 |
| $160 < h \leq 170$ | 22 |
| $170 < h \leq 180$ | 19 |

(a) Find the class interval that contains the median.

[1 mark]



Question 8

The grouped frequency table gives information about the heights of 30 students.

| Height (h cm) | Frequency |
|--------------------|-----------|
| $130 < h \leq 140$ | 1 |
| $140 < h \leq 150$ | 7 |
| $150 < h \leq 160$ | 8 |
| $160 < h \leq 170$ | 10 |
| $170 < h \leq 180$ | 4 |

(a) Write down the modal class interval.

[1 mark]

Question 9

The table gives information about the temperature, T °C, at noon in a town for 50 days.

| Temperature (T °C) | Frequency |
|-----------------------|-----------|
| $8 < T \leq 12$ | 6 |
| $12 < T \leq 16$ | 8 |
| $16 < T \leq 20$ | 13 |
| $20 < T \leq 24$ | 21 |
| $24 < T \leq 28$ | 2 |

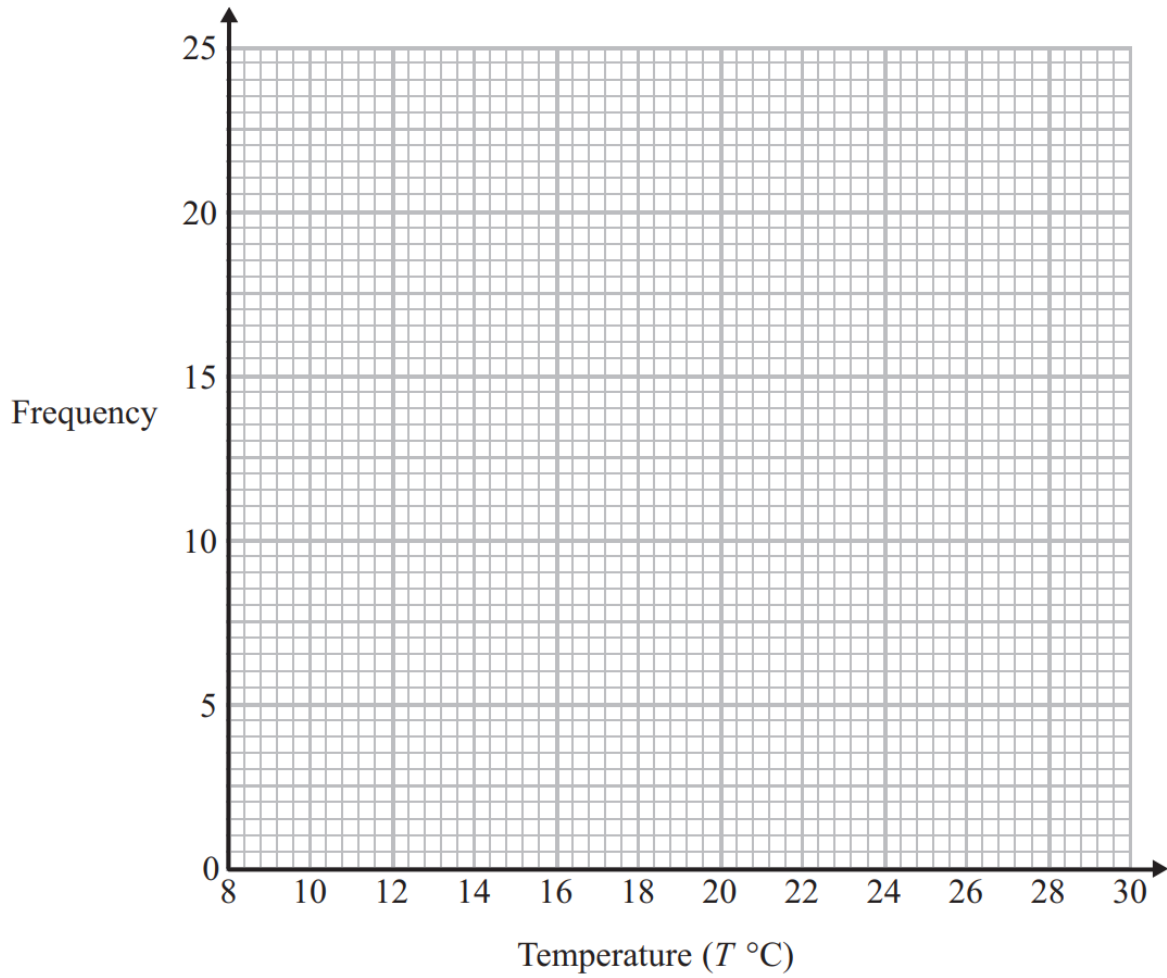
(a) Write down the modal class interval.

[1 mark]



Question 10

(c) Draw a frequency polygon for the information in the table.



[2 marks]

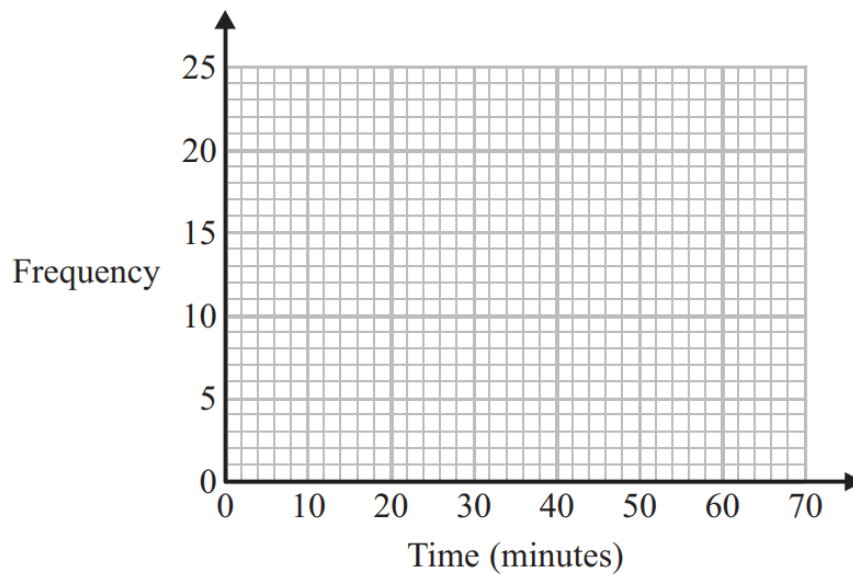


Question 11

The frequency table gives information about the times it took some office workers to get to the office one day.

| Time (t minutes) | Frequency |
|---------------------|-----------|
| $0 < t \leq 10$ | 4 |
| $10 < t \leq 20$ | 8 |
| $20 < t \leq 30$ | 14 |
| $30 < t \leq 40$ | 16 |
| $40 < t \leq 50$ | 6 |
| $50 < t \leq 60$ | 2 |

(a) Draw a frequency polygon for this information.



[2 marks]



Question 12

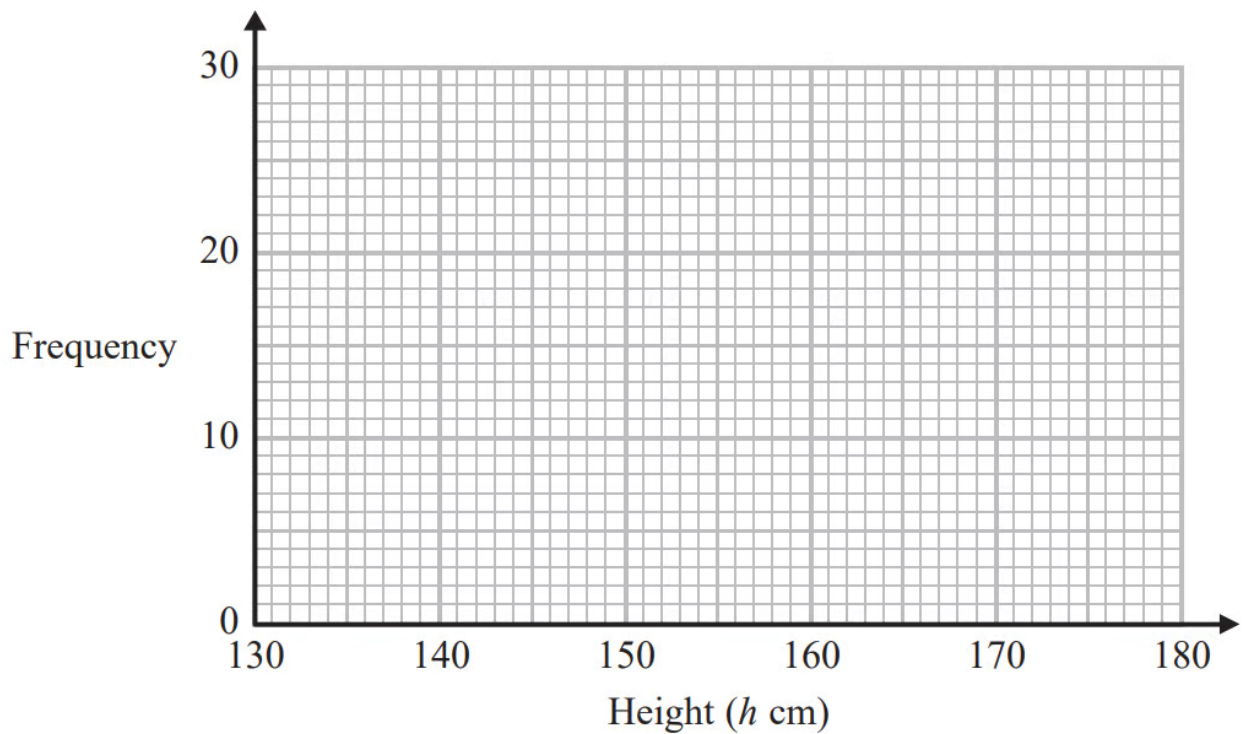
One of the office workers is chosen at random.

- (c) Work out the probability that this office worker took more than 40 minutes to get to the office.

[2 marks]

Question 13

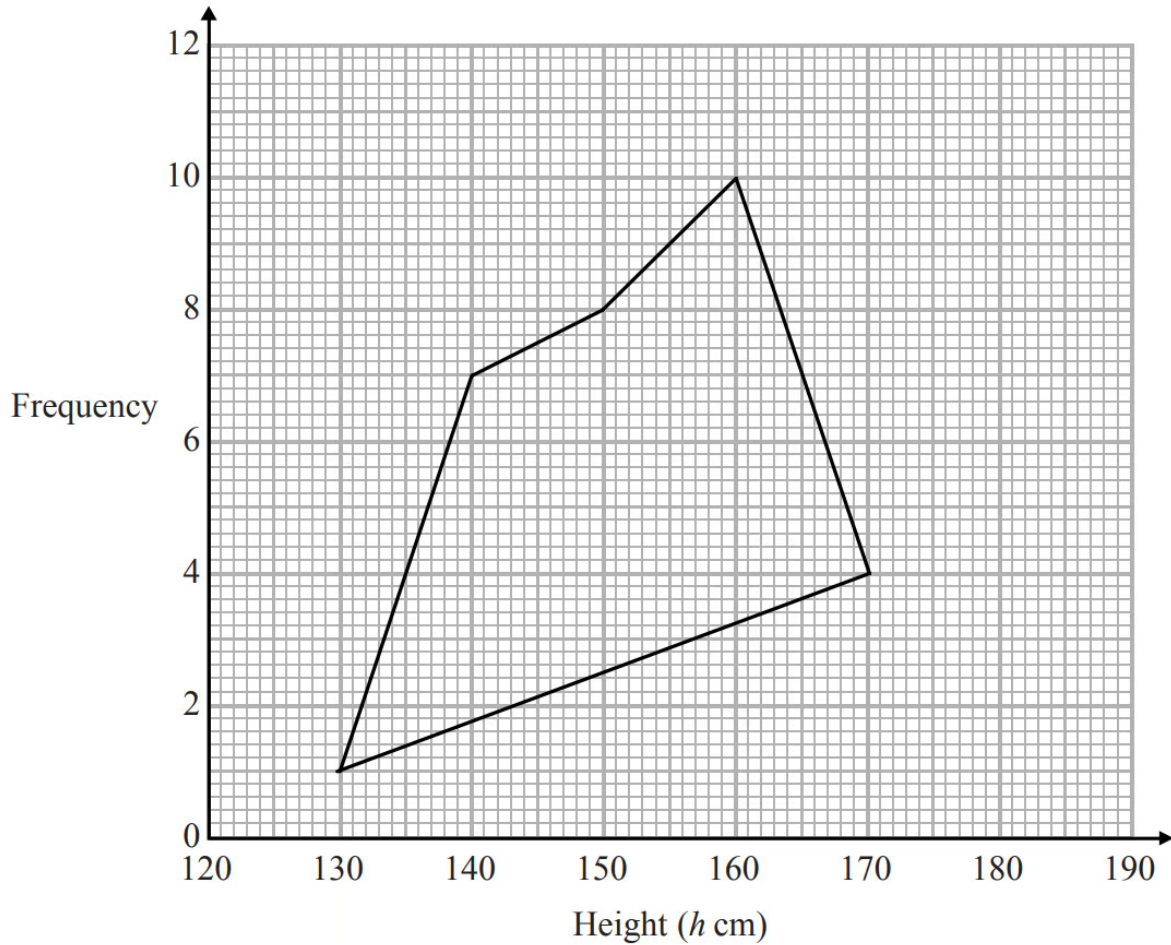
- (b) Draw a frequency polygon for the information in the table.



[2 marks]

Question 14

This incorrect frequency polygon has been drawn for the information in the table.



(b) Write down two things wrong with this incorrect frequency polygon.

[2 marks]



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Question 15

(b) Calculate an estimate for the mean temperature.

[4 marks]