

# Histograms

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Questions in past papers often come up combined with other topics.  
Topic tags have been given for each question to enable you to know if you can do the question or whether you need to wait to cover the additional topic(s).

Scan the QR code(s) or click the link for instant detailed model solutions!

## Question 3

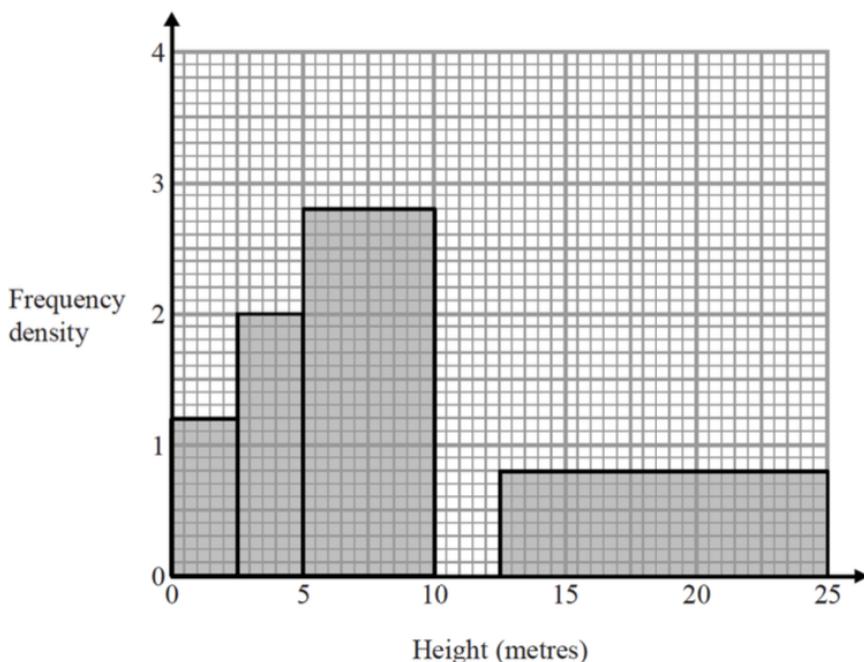
Qualification: GCSE Edexcel Higher

Areas: Statistics and Probability

Subtopics: Histograms

Paper: Paper-2H-Calculator / Series: 2019-November / Difficulty: Medium / Question Number: 18

**18** The histogram gives information about the heights, in metres, of the trees in a park.  
The histogram is incomplete.



20% of the trees in the park have a height between 10 metres and 12.5 metres.  
None of the trees in the park have a height greater than 25 metres.

Complete the histogram.

**(Total for Question 18 is 3 marks)**

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## Question 6

Qualification: IGCSE Edexcel A Higher

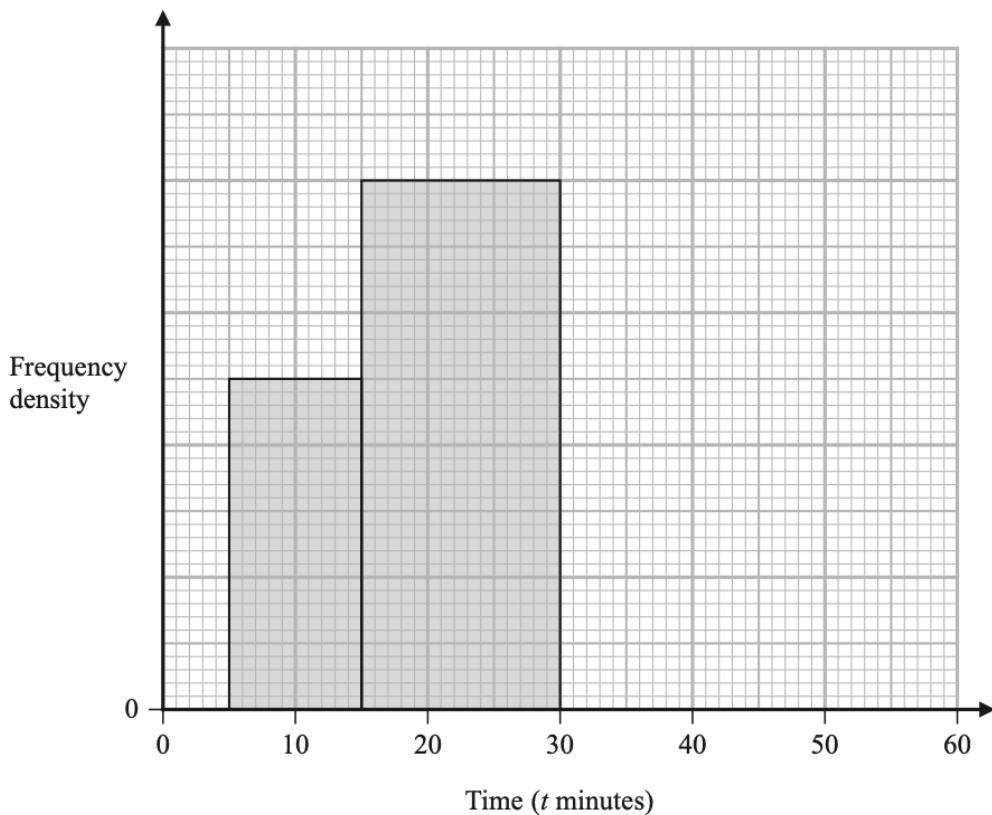
Areas: Statistics and Probability

Subtopics: Histograms

Paper: Paper-1H / Series: 2023-June / Difficulty: Somewhat Challenging / Question Number: 18

18 The incomplete table and incomplete histogram give information about the times, in minutes, that 140 people waited at a station for a train.

Time ( $t$ minutes)	Frequency
$0 < t \leq 5$	23
$5 < t \leq 15$	
$15 < t \leq 30$	
$30 < t \leq 40$	18
$40 < t \leq 60$	14



Complete the table and the histogram.

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**(Total for Question 18 is 4 marks)**

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## Question 7

Qualification: GCSE Edexcel Higher

Areas: Statistics and Probability

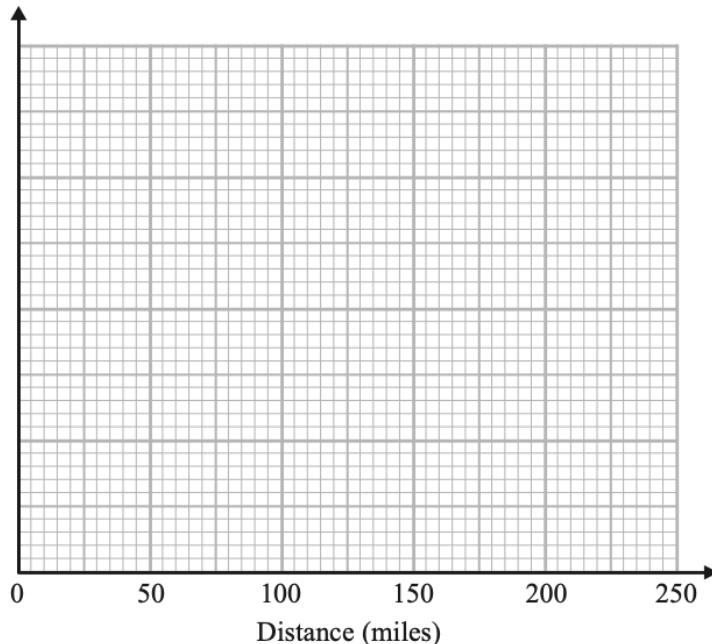
Subtopics: Histograms, Determining the Median

Paper: Paper-3H-Calculator / Series: 2018-November / Difficulty: Somewhat Challenging / Question Number: 17

17 The table shows information about the distances 570 students travelled to a university open day.

Distance ( $d$ miles)	Frequency
$0 < d \leq 20$	120
$20 < d \leq 50$	90
$50 < d \leq 80$	120
$80 < d \leq 150$	140
$150 < d \leq 200$	100

(a) Draw a histogram for the information in the table.



(3)

(b) Estimate the median distance.

..... miles  
(2)

(Total for Question 17 is 5 marks)

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## Question 8

Qualification: GCSE Edexcel Higher

Areas: Statistics and Probability

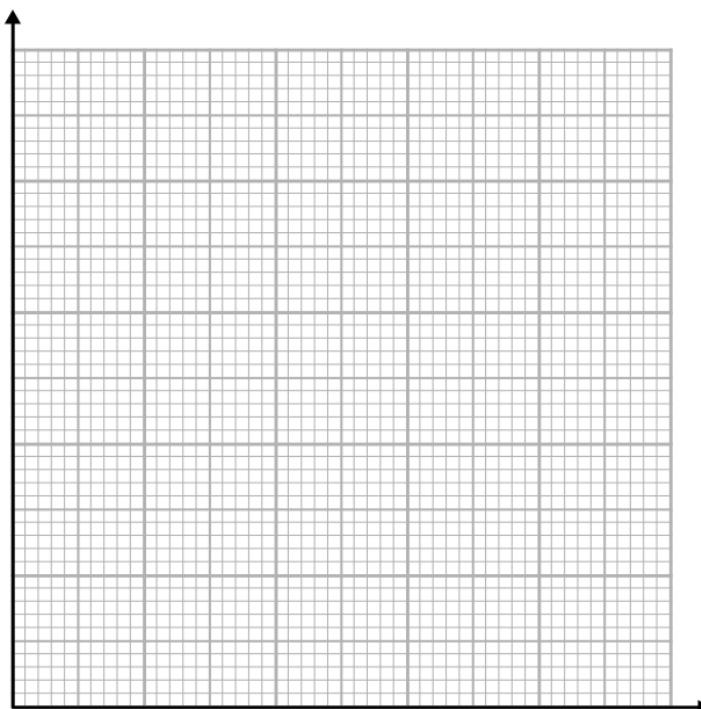
Subtopics: Histograms, Determining the Median

Paper: Paper-3H-Calculator / Series: Specimen-Set-2 / Difficulty: Somewhat Challenging / Question Number: 14

14 The table gives information about the speeds, in km/h, of 81 cars.

Speed (s km/h)	Frequency
$90 < s \leq 100$	13
$100 < s \leq 105$	16
$105 < s \leq 110$	18
$110 < s \leq 120$	22
$120 < s \leq 140$	12

(a) On the grid, draw a histogram for the information in the table.



(3)

(b) Find an estimate for the median.

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km/h

(2)

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(Total for Question 14 is 5 marks)



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## Question 5

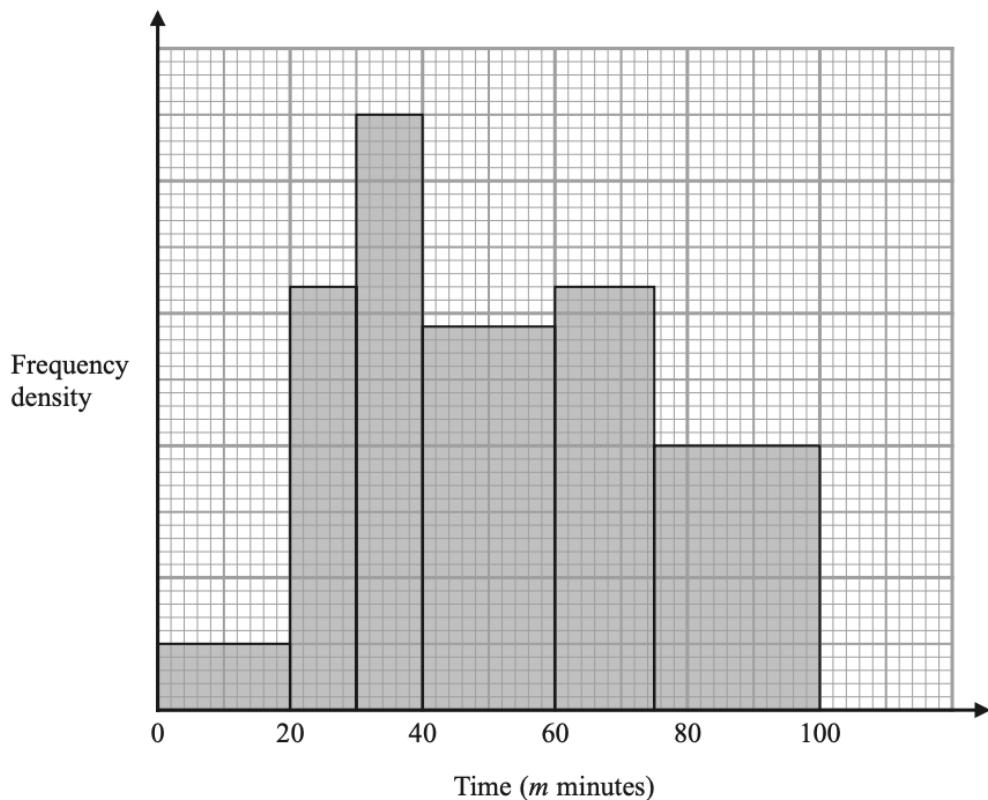
Qualification: IGCSE Edexcel A Higher

Areas: Statistics and Probability

Subtopics: Histograms

Paper: Paper-1H / Series: 2022-June / Difficulty: Hard / Question Number: 21

21 The histogram shows information about the total time,  $m$  minutes, taken by each child in a school to walk to school every day for one week.



There are no children for whom  $m > 100$

There are 10 children for whom  $m \leq 20$

Work out an estimate for the number of children for whom  $50 < m \leq 80$

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(Total for Question 21 is 3 marks)

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## Question 1

Qualification: IGCSE Edexcel A Higher

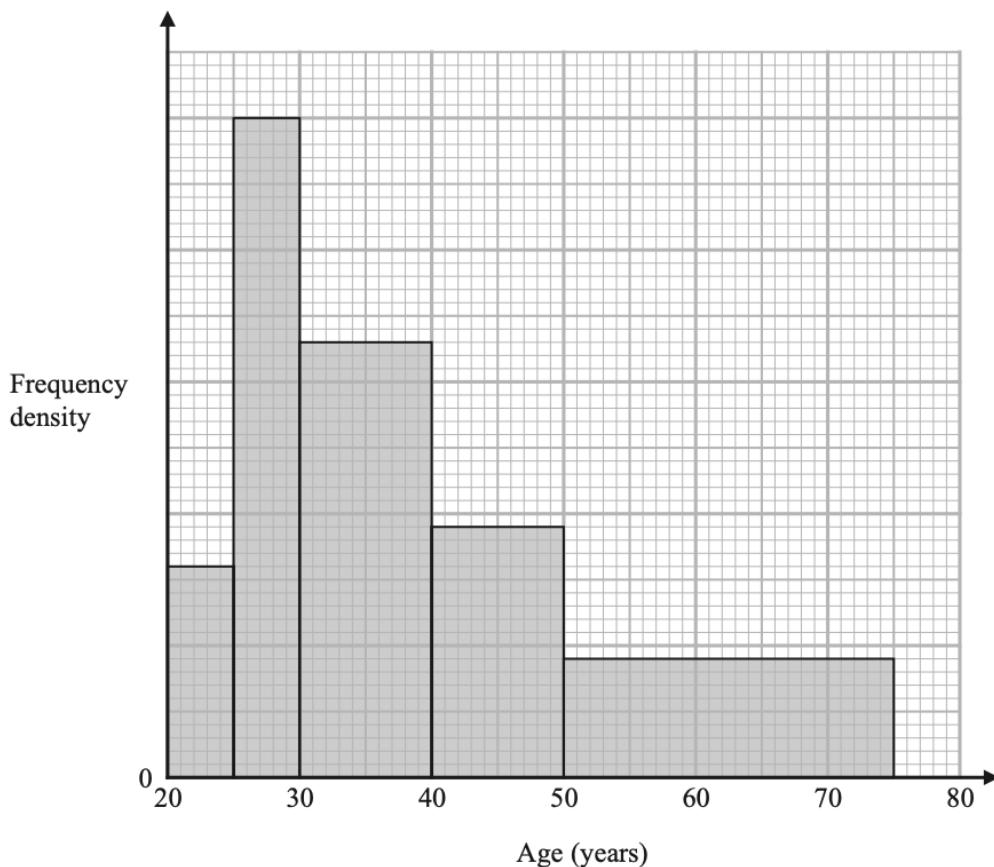
Areas: Statistics and Probability

Subtopics: Histograms, Percentages

Paper: Paper-1HR / Series: 2023-June / Difficulty: Hard / Question Number: 22

**22** Some people attend a concert.

The histogram shows information about the ages of these people.



Work out an estimate for the percentage of these people who are aged more than 55 years.

Give your answer correct to one decimal place.

.....%

(Total for Question 22 is 4 marks)

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## Question 2

Qualification: IGCSE Edexcel A Higher

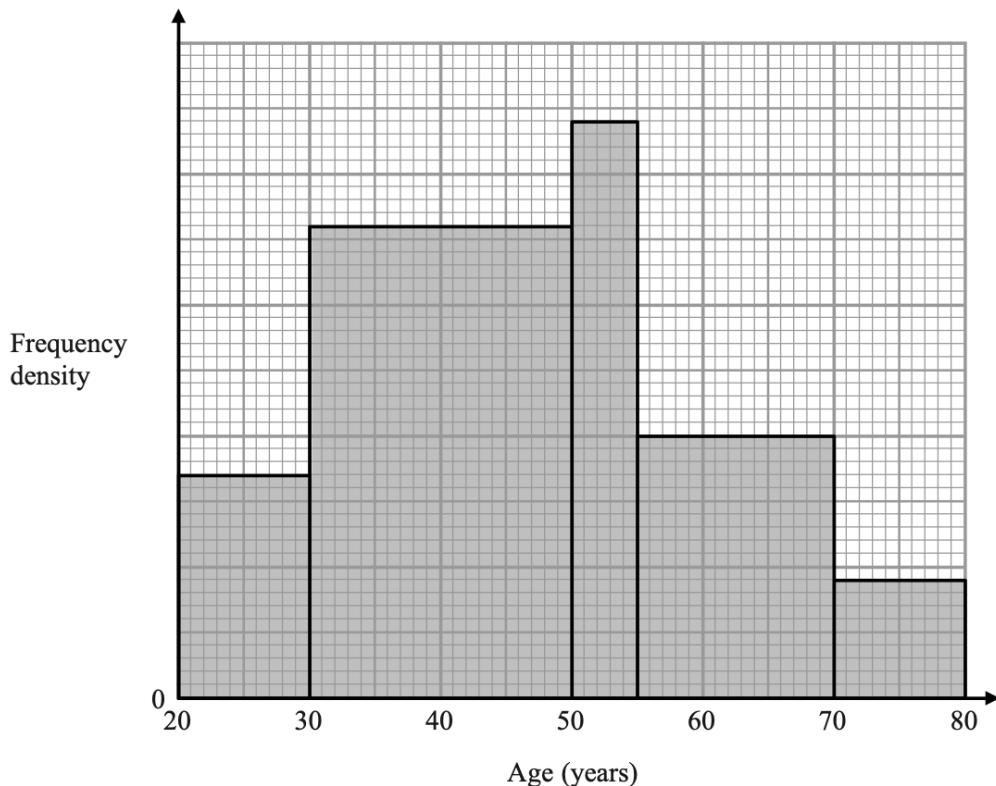
Areas: Statistics and Probability

Subtopics: Histograms

Paper: Paper-1H / Series: Specimen / Difficulty: Very Hard / Question Number: 19

**19** 150 people took part in a survey.

The histogram shows information about the ages of these people.



Work out how many of these 150 people are aged between 50 years and 55 years.

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(Total for Question 19 is 4 marks)



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