

Frequency Polygons

Question Paper

Level	GCSE
Subject	Maths
Exam Board	Edexcel GCSE
Topic	Frequency Polygons
Grade Level	Grade 1/2
Booklet	Question Paper

Time Allowed: 40 minutes

Score: /33

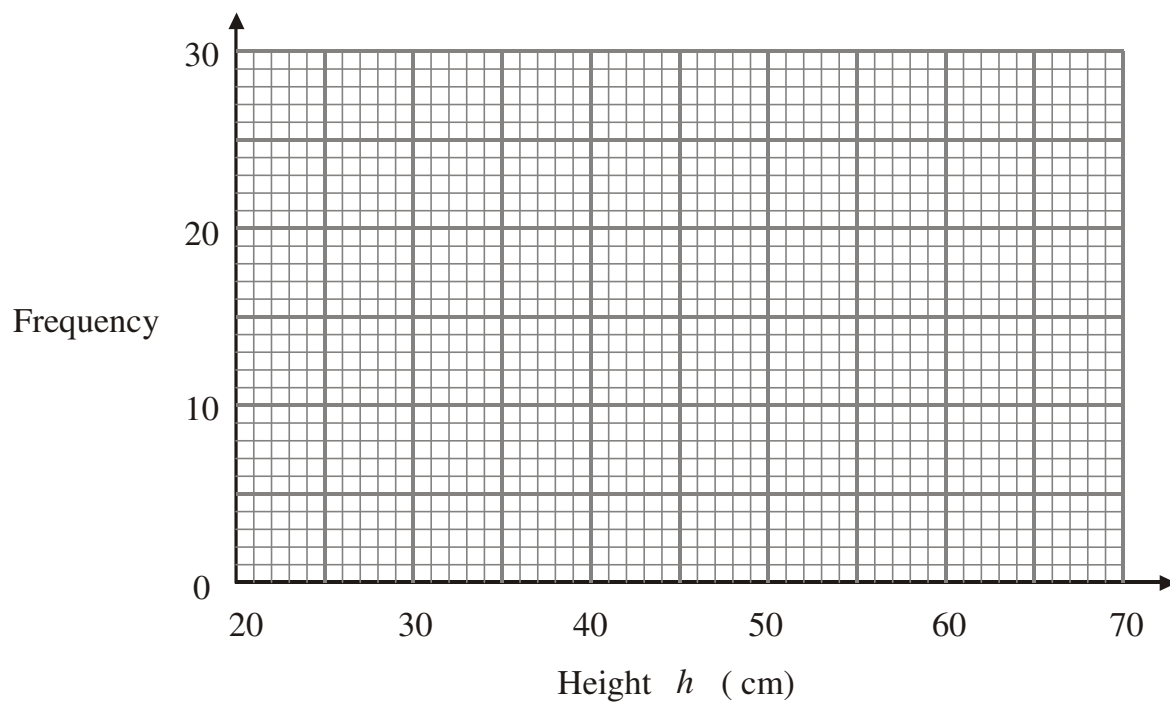
Percentage: /100

Grade Boundaries:

1. The table shows some information about the heights (h cm) of 60 plants.

Height (h cm)	Frequency
$20 < w \leq 30$	8
$30 < w \leq 40$	13
$40 < w \leq 50$	25
$50 < w \leq 60$	10
$60 < w \leq 70$	4

Draw a frequency polygon to show this information.

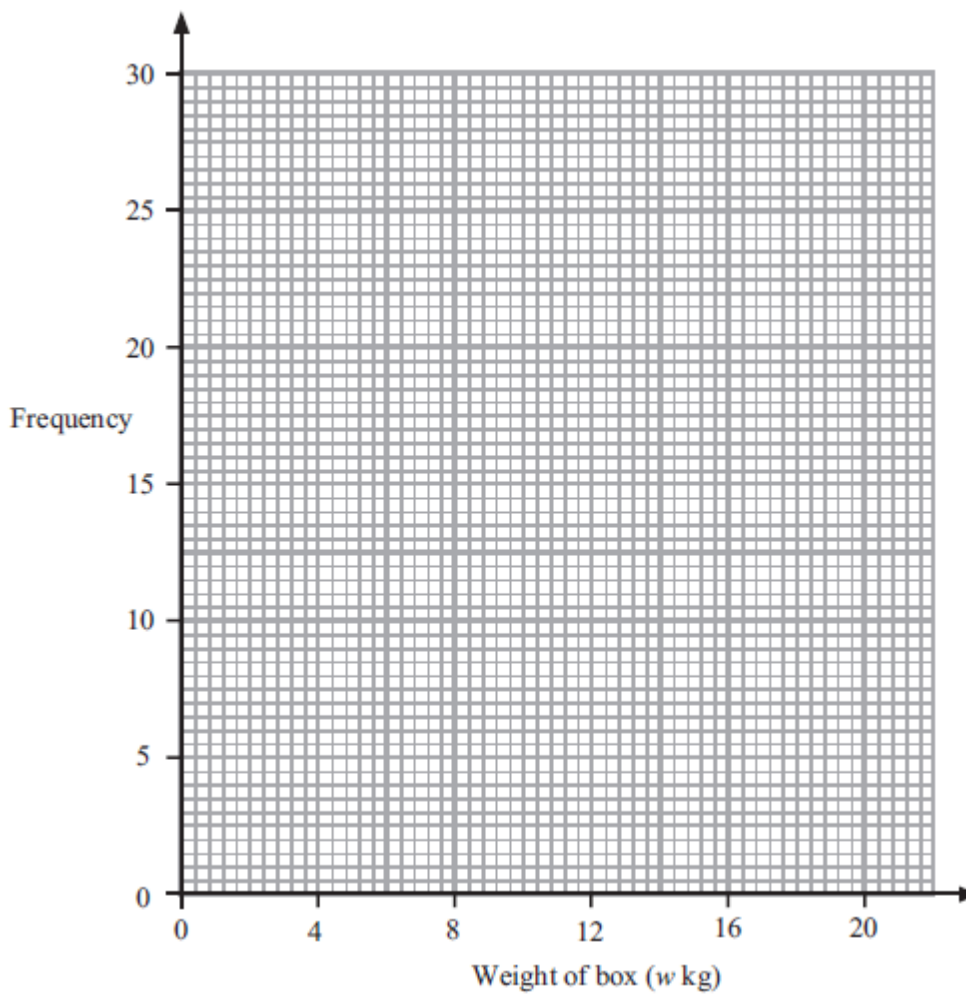


(4 marks)

2. The table shows some information about the weights, in kg, of 100 boxes.

Weight of box (w kg)	Frequency
$0 < w \leq 4$	10
$4 < w \leq 8$	17
$8 < w \leq 12$	28
$12 < w \leq 16$	25
$16 < w \leq 20$	20

Draw a frequency polygon to show this information.



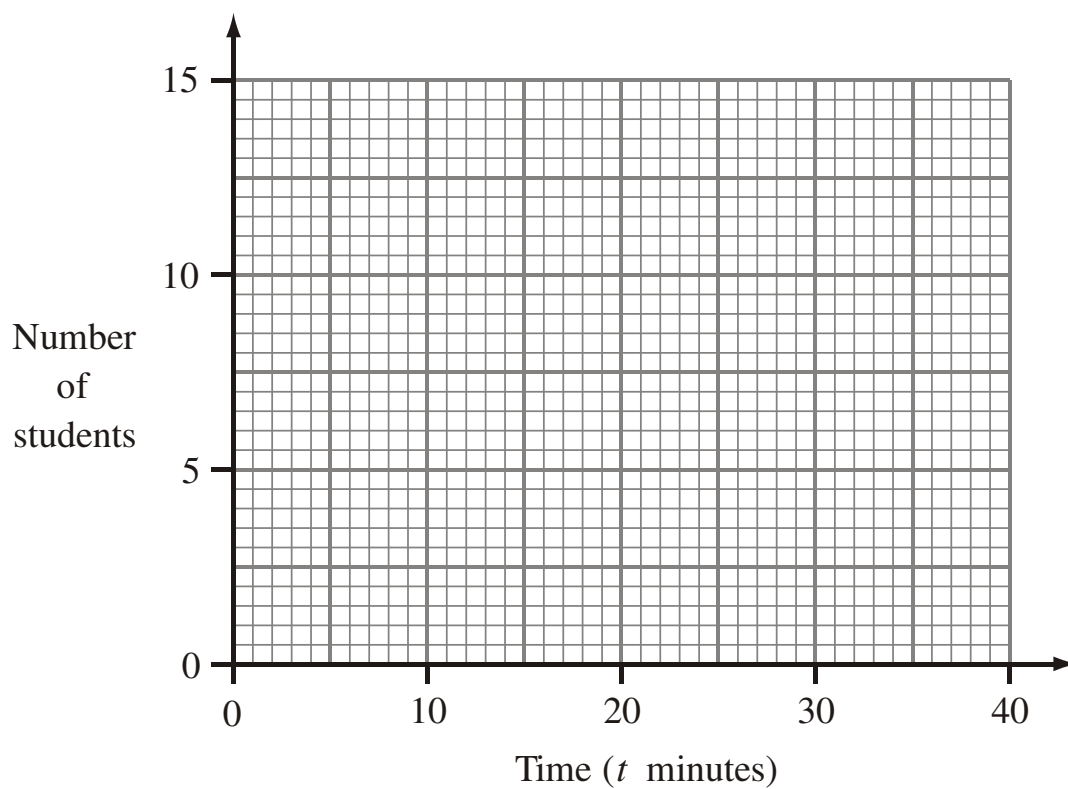
(4 marks)

3. 30 students ran a cross-country race.
Each student's time was recorded.

The table shows information about these times.

Time (t minutes)	Frequency
$10 \leq t < 14$	2
$14 \leq t < 18$	5
$18 \leq t < 22$	12
$22 \leq t < 26$	8
$26 \leq t < 30$	3

On the grid, draw a frequency polygon to show this information.

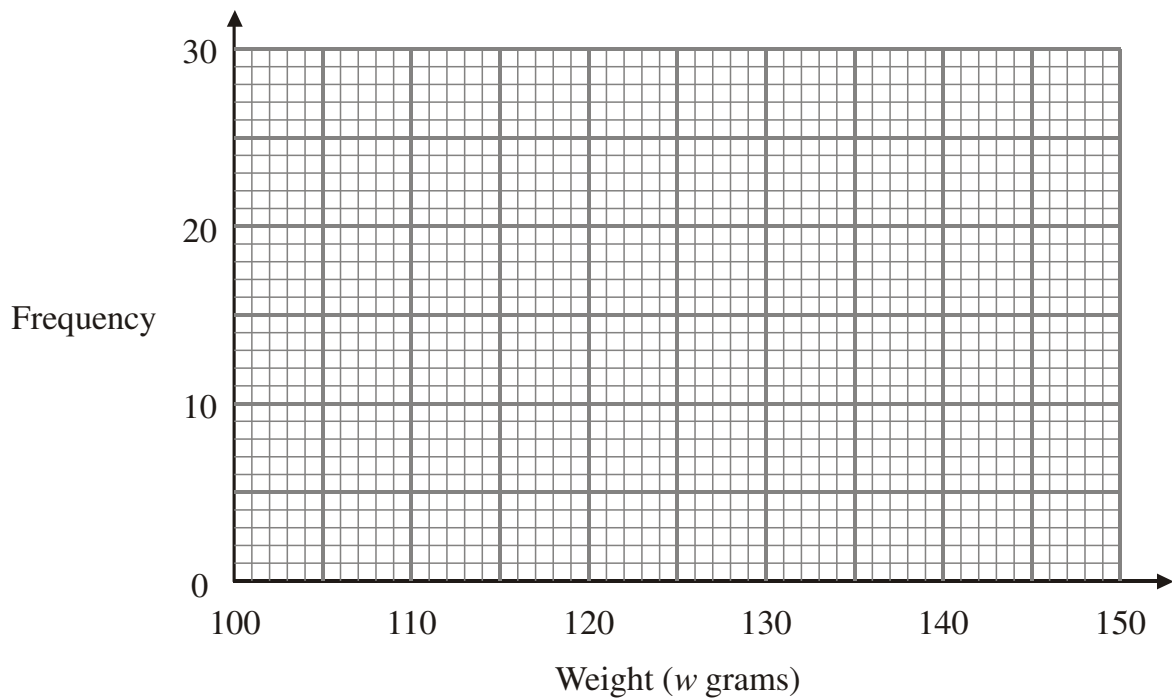


(4 marks)

4. The table shows some information about the weights (w grams) of 60 apples.

Weight (w grams)	Frequency
$100 \leq w < 110$	5
$110 \leq w < 120$	9
$120 \leq w < 130$	14
$130 \leq w < 140$	24
$140 \leq w < 150$	8

Draw a frequency polygon to show this information.

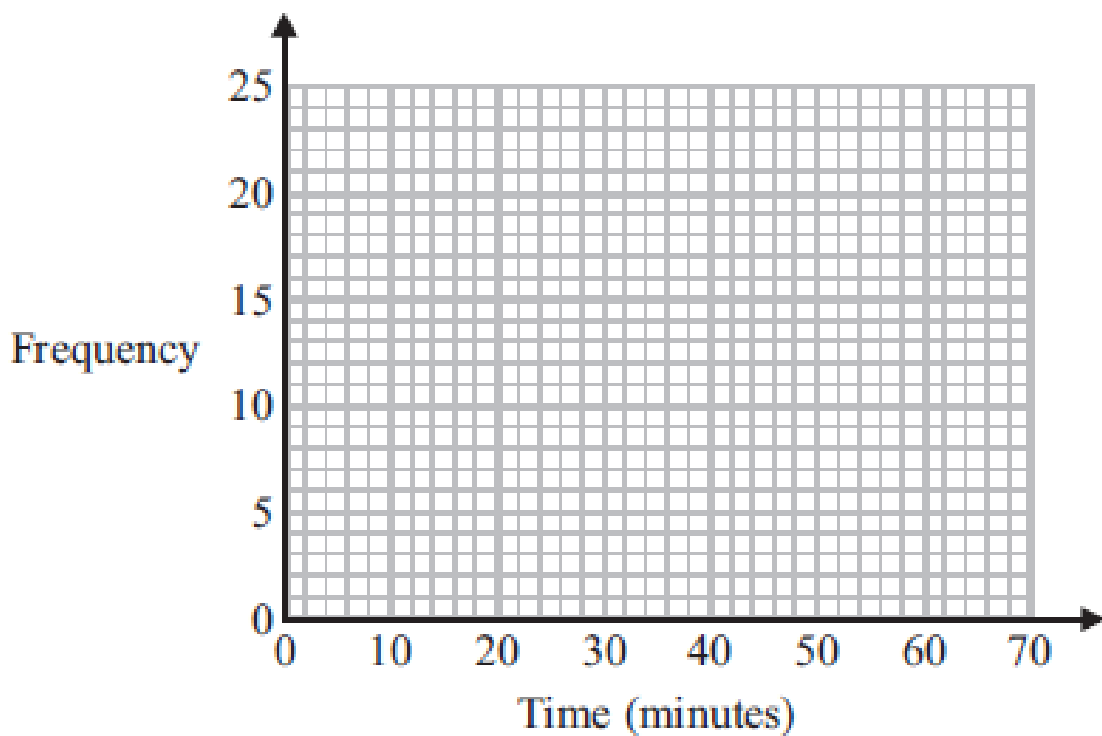


(4 marks)

5. 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.



(3)

- (b) Write down the modal class interval.

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(1)

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.

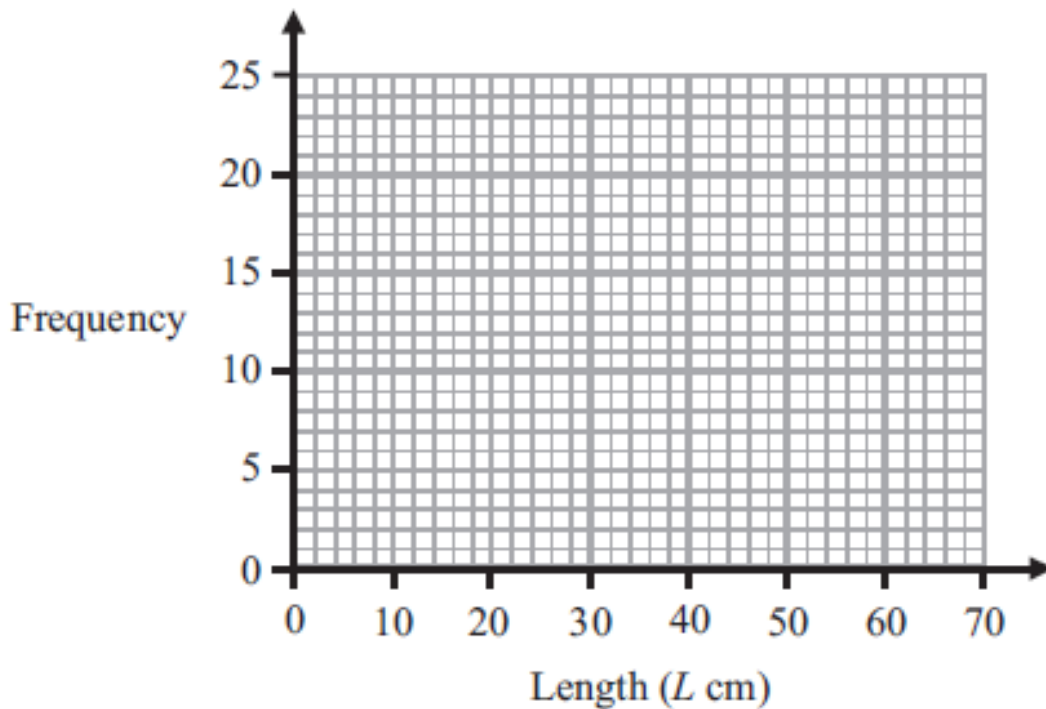
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(2)

(6 marks)

6. The table gives information about the lengths of the branches on a bush.

Length(Lcm)	Frequency
$0 \leq L < 10$	20
$10 \leq L < 20$	12
$20 \leq L < 30$	10
$30 \leq L < 40$	8
$40 \leq L < 50$	6
$50 \leq L < 60$	0

(a) Draw a frequency polygon to show this information.



(3)

(b) Write down the modal class interval.

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(1)

One of the branches is chosen at random.

(c) Work out the probability that this branch less than 20 cm long.

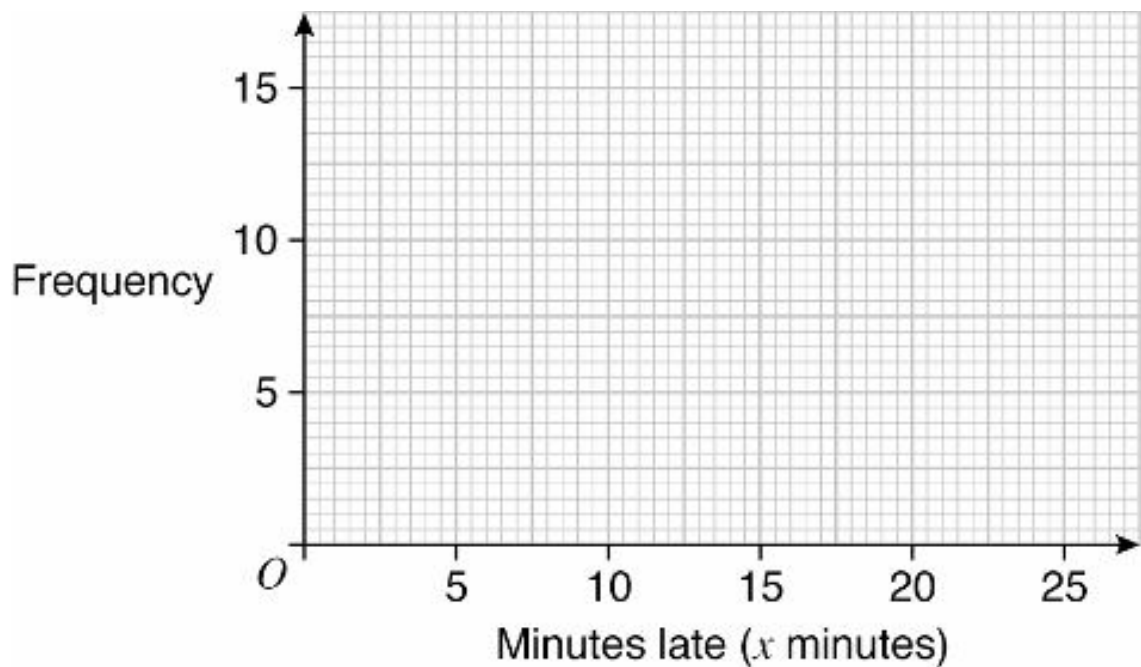
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(2)

(6 marks)

7. In one month, Janet travelled by bus 25 times and by train 25 times. The grouped frequency table records the number of minutes (x minutes) late each of her buses and trains were.

Minutes late	Bus	Train
$0 \leq x < 5$	5	9
$5 \leq x < 10$	15	6
$10 \leq x < 15$	4	6
$15 \leq x < 20$	1	2
$20 \leq x < 25$	0	3

- (a) On the grid below draw two frequency polygons to illustrate this data.



(3)

- (b) Use your polygons to compare the lateness of buses and trains and comment on any differences you observe.

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(2)
 (5 marks)