

FULL MODEL ANSWERS

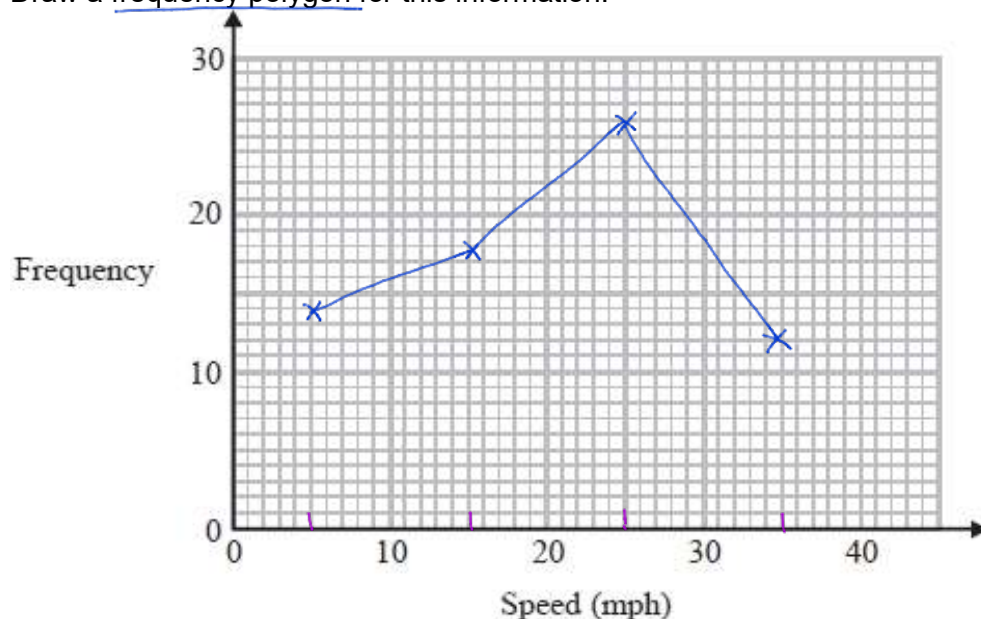
Q1. CALCULATOR ALLOWED

Speed (s mph)	Frequency
$0 < s \leq 10$	14
$10 < s \leq 20$	18
$20 < s \leq 30$	26
$30 < s \leq 40$	12

↑
plot at
midpoint

The table gives information about the speeds of 70 cars.

Draw a frequency polygon for this information.



(Total for question = 2 marks)

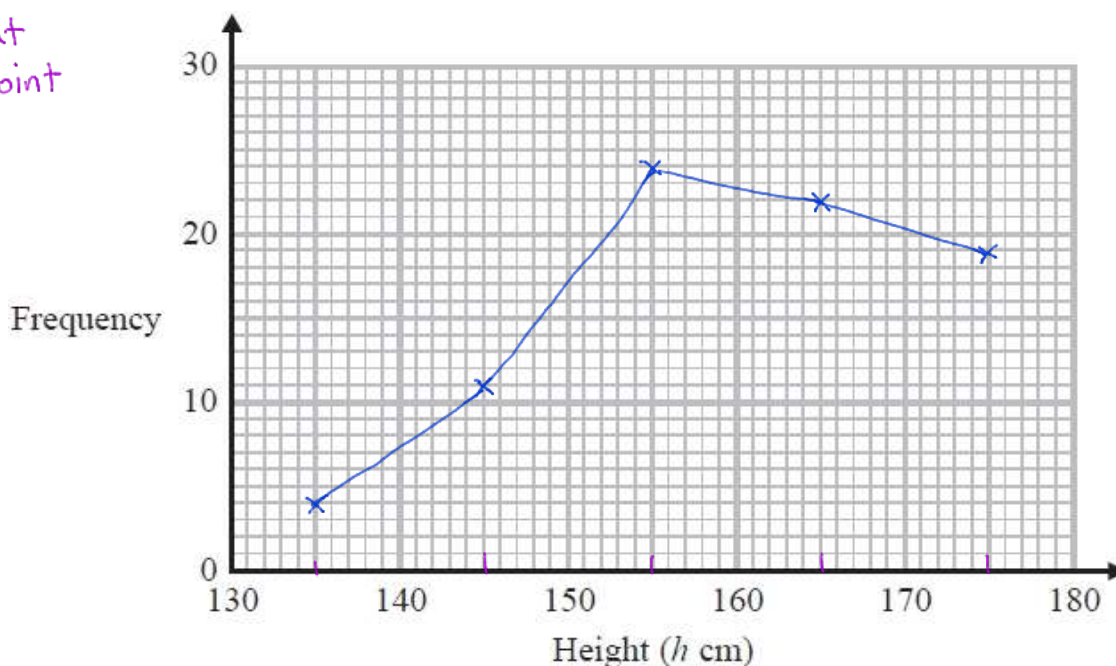
Q2. CALCULATOR ALLOWED

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

↑
plot at
midpoint

The table shows information about the heights of 80 children.

Draw a frequency polygon for the information in the table.



(Total for question = 2 marks)

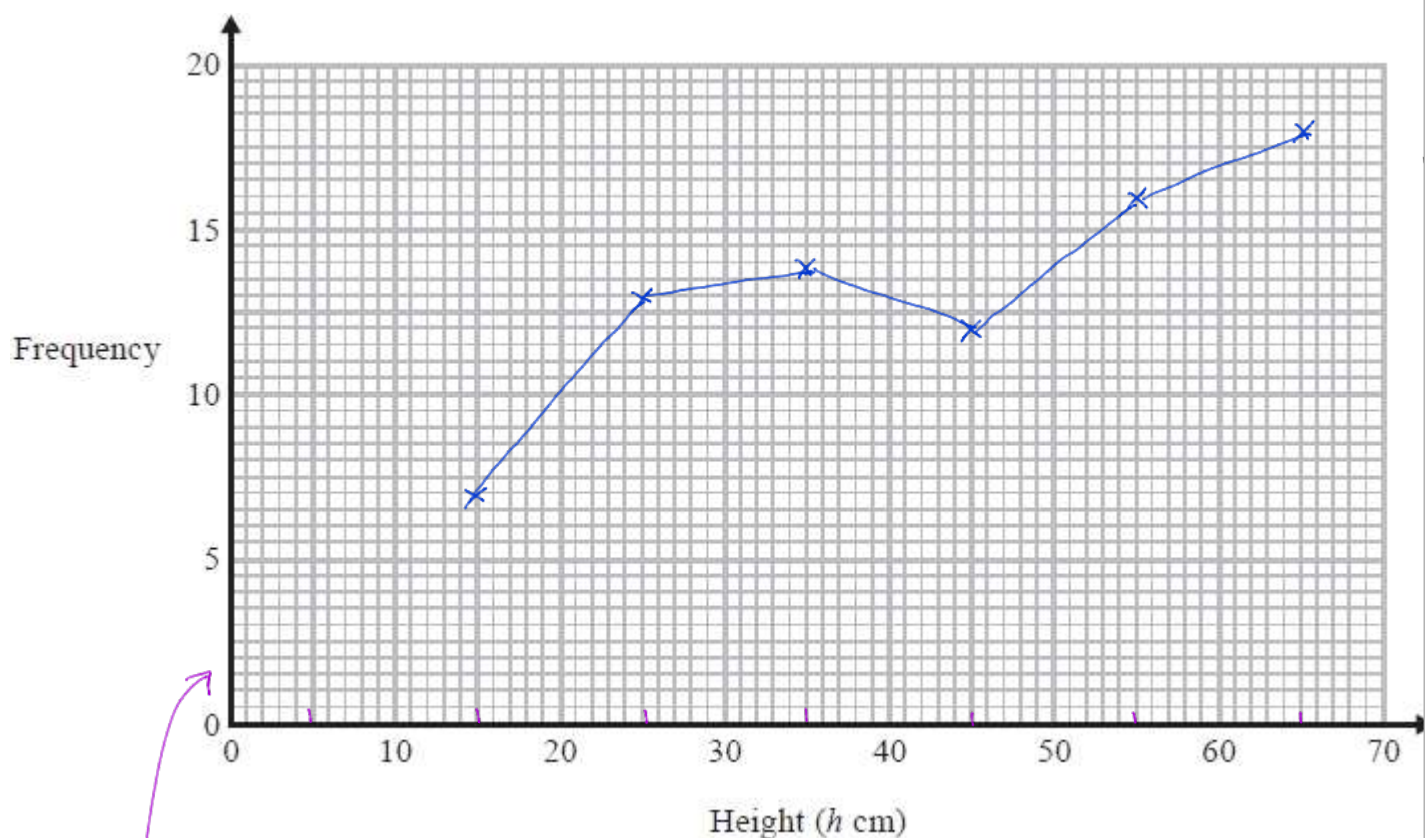
Q3. CALCULATOR ALLOWED

The table shows information about the heights of 80 plants.

Height (h cm)	Frequency
$10 < h \leq 20$	7
$20 < h \leq 30$	13
$30 < h \leq 40$	14
$40 < h \leq 50$	12
$50 < h \leq 60$	16
$60 < h \leq 70$	18

Plot at midpoint

(b) On the grid, draw a frequency polygon for the information in the table.



(Total for question = 2 marks)

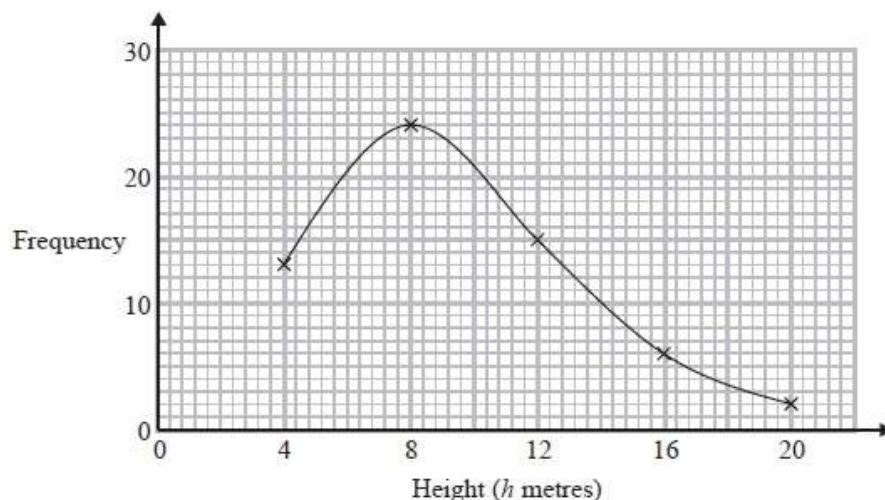
Be careful with this scale.

Q4. CALCULATOR ALLOWED

Height (h metres)	Frequency
$0 < h \leq 4$	13
$4 < h \leq 8$	24
$8 < h \leq 12$	15
$12 < h \leq 16$	6
$16 < h \leq 20$	2

The table shows information about the heights of 60 trees.

Jacob drew this frequency polygon for the information in the table. The frequency polygon is not correct.



Write down two things that are wrong with the frequency polygon.

- 1 The data should be plotted at each group's midpoint.
- 2 The crosses should be joined by straight line segments, not a curve.

(Total for question = 2 marks)

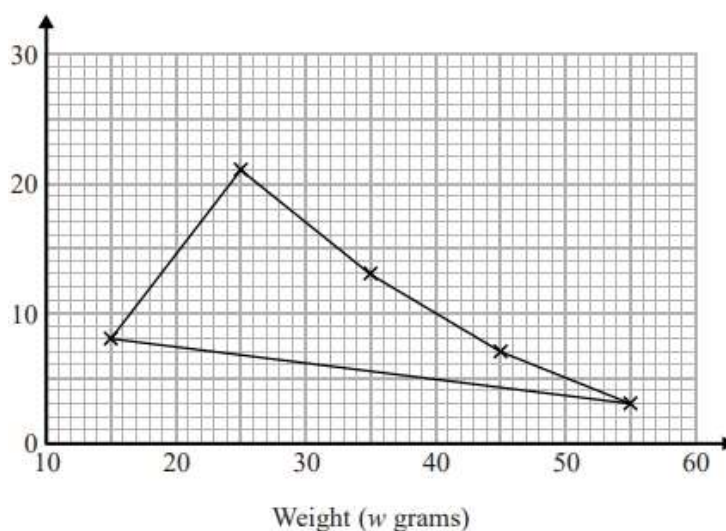
Q5. CALCULATOR ALLOWED

The table shows some information about the weights of 50 potatoes.

Weight (w grams)	Frequency
$10 < w \leq 20$	6
$20 < w \leq 30$	21
$30 < w \leq 40$	13
$40 < w \leq 50$	7
$50 < w \leq 60$	3

Iveta drew this frequency polygon for the information in the table.

The frequency polygon is **not** fully correct.



Write down two things that are wrong with the frequency polygon.

- 1 The first data point is plotted wrong. It should be at (15, 6) not (15, 8)
- 2 The last and first data points are connected with a line segment.

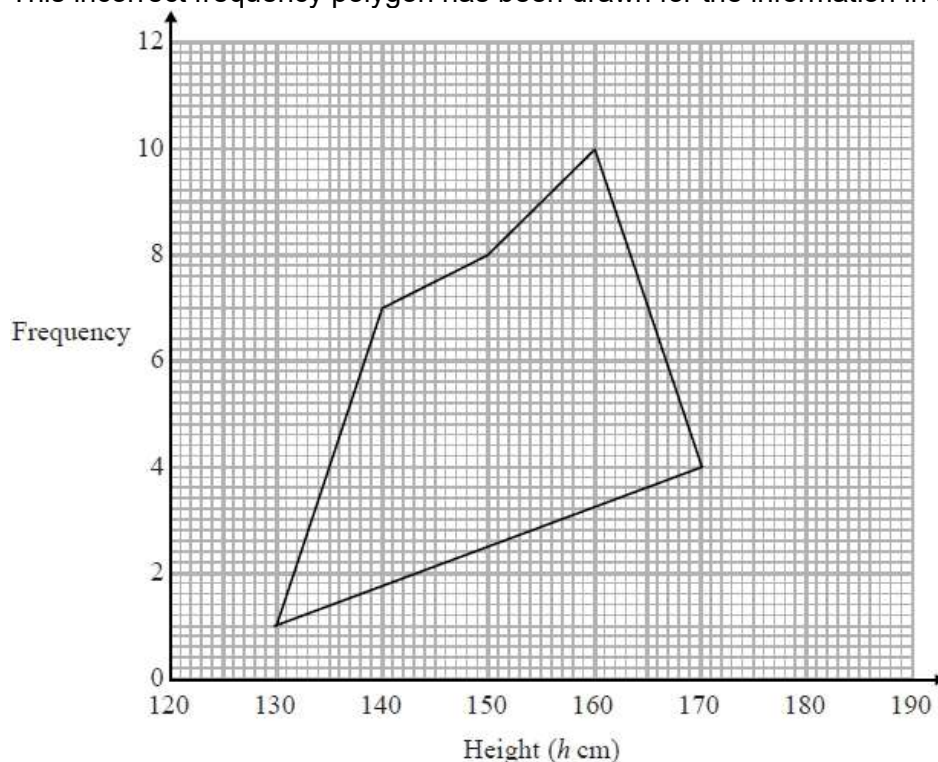
(Total for question = 2 marks)

Q6. CALCULATOR ALLOWED

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

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



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

- 1 Each data point should be plotted at midpoint of each group.
- 2 The first and last data points should not be joined.

(Total for question is 2 marks)