



# Frequency Polygons



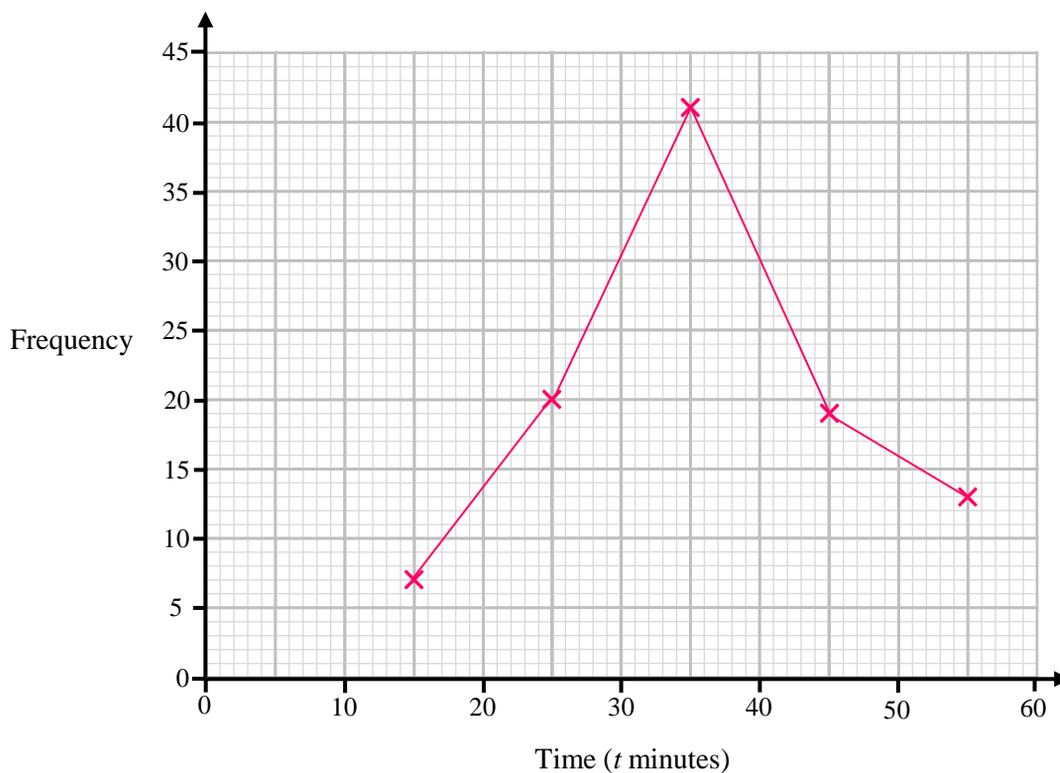
REVISE THIS TOPIC



1 The table shows information about the time,  $t$  minutes, that 100 students spent revising.

Time ( $t$ minutes)	Frequency
$10 < t \leq 20$	7
$20 < t \leq 30$	20
$30 < t \leq 40$	41
$40 < t \leq 50$	19
$50 < t \leq 60$	13

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



(Total for Question 1 is 2 marks)

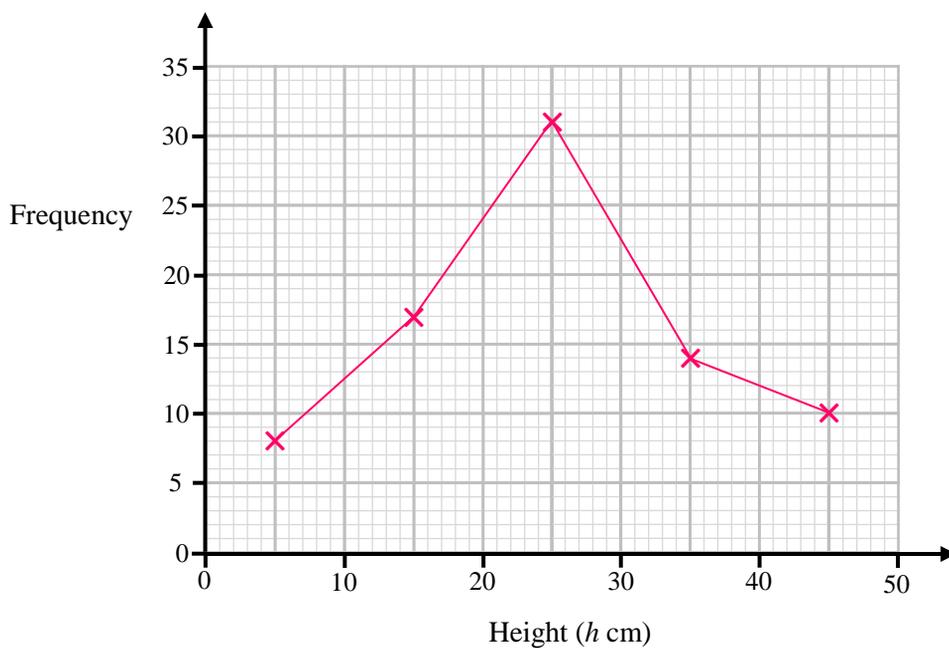


1

2 The table shows information about the height,  $h$  centimetres, of 80 plants.

Height ( $h$ cm)	Frequency
$0 < h \leq 10$	8
$10 < h \leq 20$	17
$20 < h \leq 30$	31
$30 < h \leq 40$	14
$40 < h \leq 50$	10

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



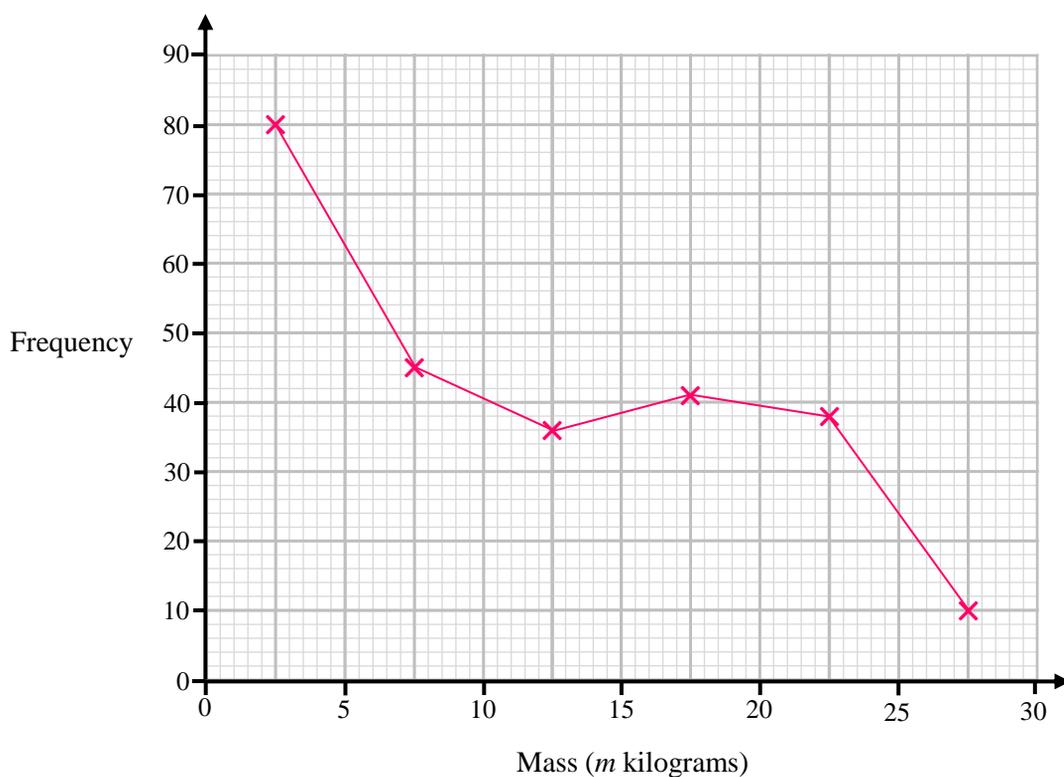
(Total for Question 2 is 2 marks)



3 The table shows information about the mass,  $m$  kilograms, of 250 pets visiting a veterinary practice.

Mass ( $m$ kilograms)	Frequency
$0 < m \leq 5$	80
$5 < m \leq 10$	45
$10 < m \leq 15$	36
$15 < m \leq 20$	41
$20 < m \leq 25$	38
$25 < m \leq 30$	10

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



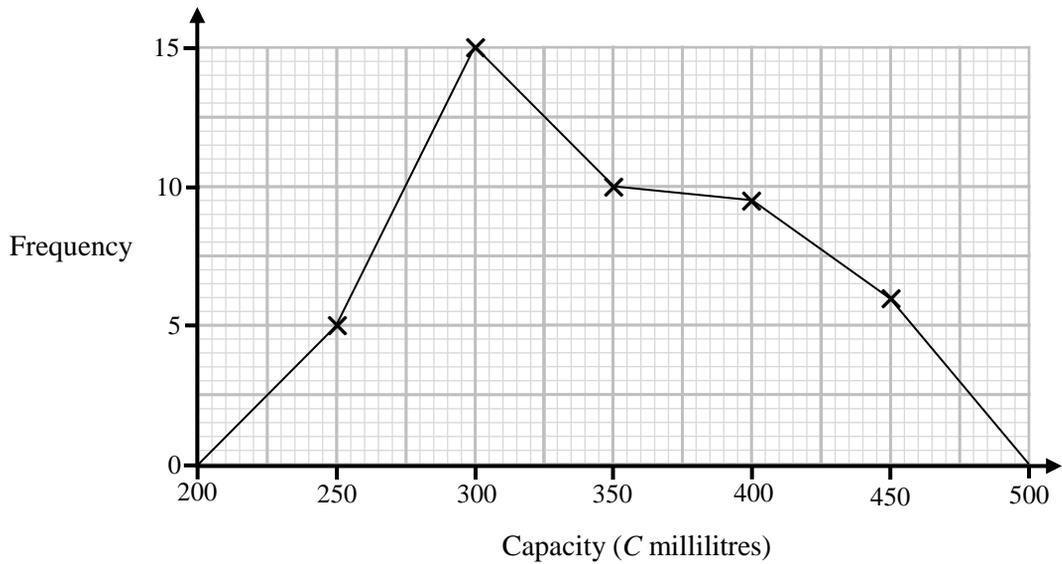
(Total for Question 3 is 2 marks)



4 The table shows information about the capacity,  $C$  millilitres, of 45 glasses.

Capacity ( $C$ millilitres)	Frequency
$200 < C \leq 250$	5
$250 < C \leq 300$	15
$300 < C \leq 350$	10
$350 < C \leq 400$	9
$400 < C \leq 450$	6

Ryan draws the frequency polygon below for the information in the table. The frequency polygon is **not** fully correct.



Write down **three** things that are wrong with the frequency polygon.

- 1 *It should not connect to the axis*
- 2 *Points are not plotted at midpoints*
- 3 *For the 4<sup>th</sup> point the frequency is plotted at 9.5 rather than 9.*

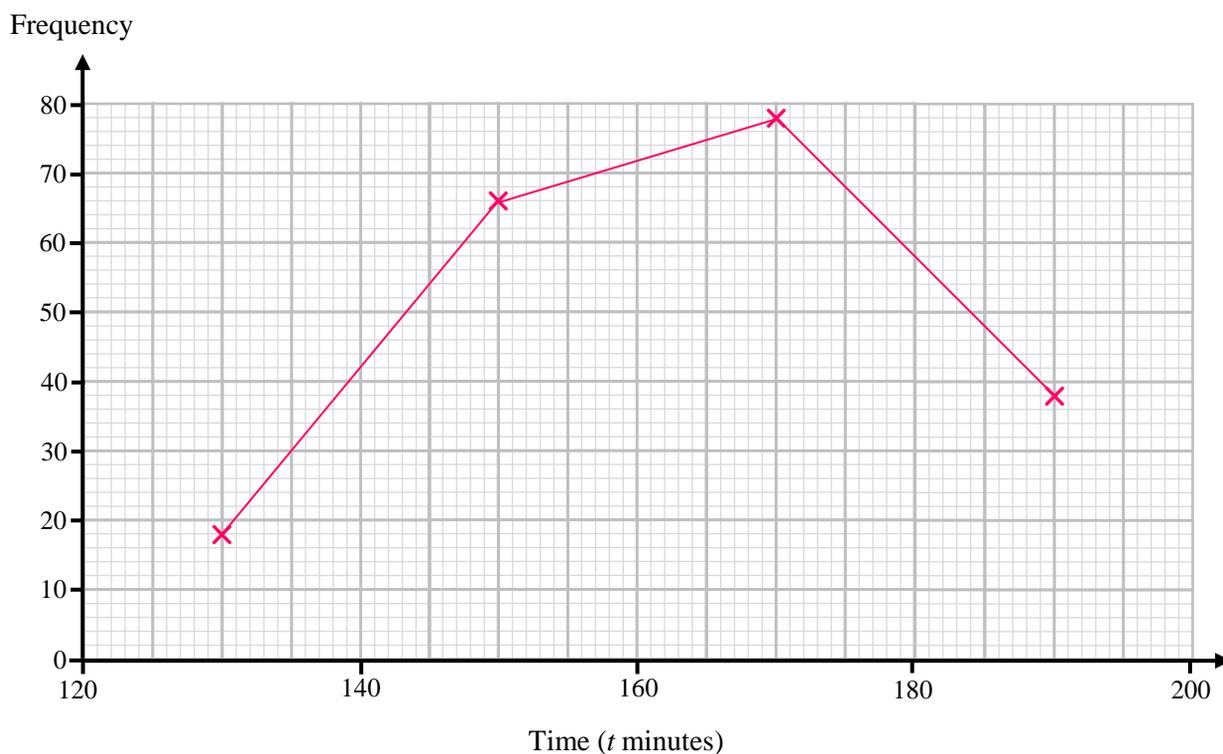
(Total for Question 4 is 3 marks)



5 The table shows information about the time,  $t$  minutes, that 200 runner spent running a marathon.

Time ( $t$ minutes)	Frequency
$120 < t \leq 140$	18
$140 < t \leq 160$	66
$160 < t \leq 180$	78
$180 < t \leq 200$	38

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



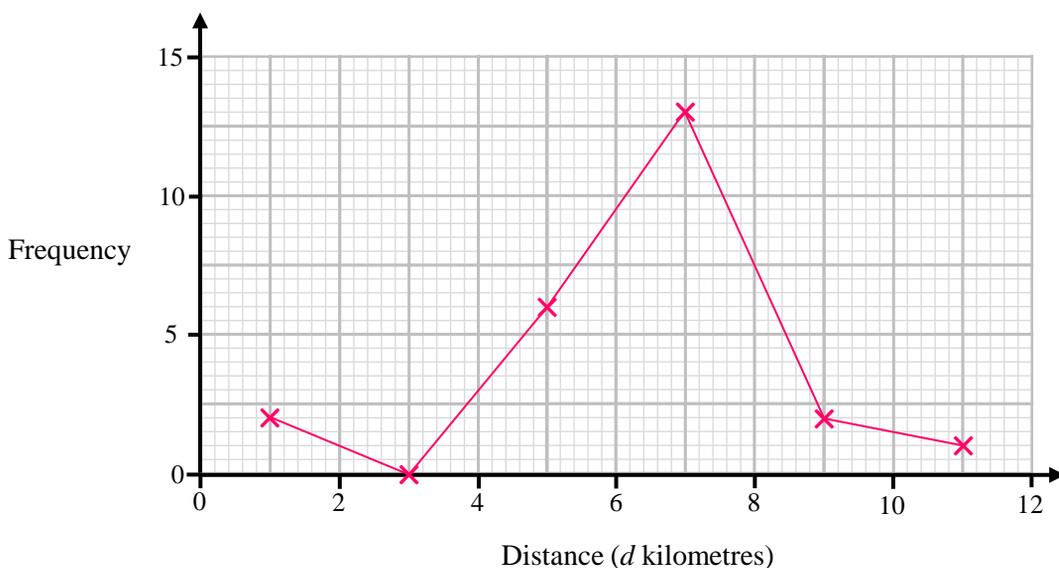
(Total for Question 5 is 2 marks)



6 The table shows information about the distance,  $d$  kilometres, that 25 footballers covered during match.

Distance ( $d$ kilometres)	Frequency
$0 < d \leq 2$	2
$2 < d \leq 4$	0
$4 < d \leq 6$	6
$6 < d \leq 8$	13
$8 < d \leq 10$	2
$10 < d \leq 12$	1

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



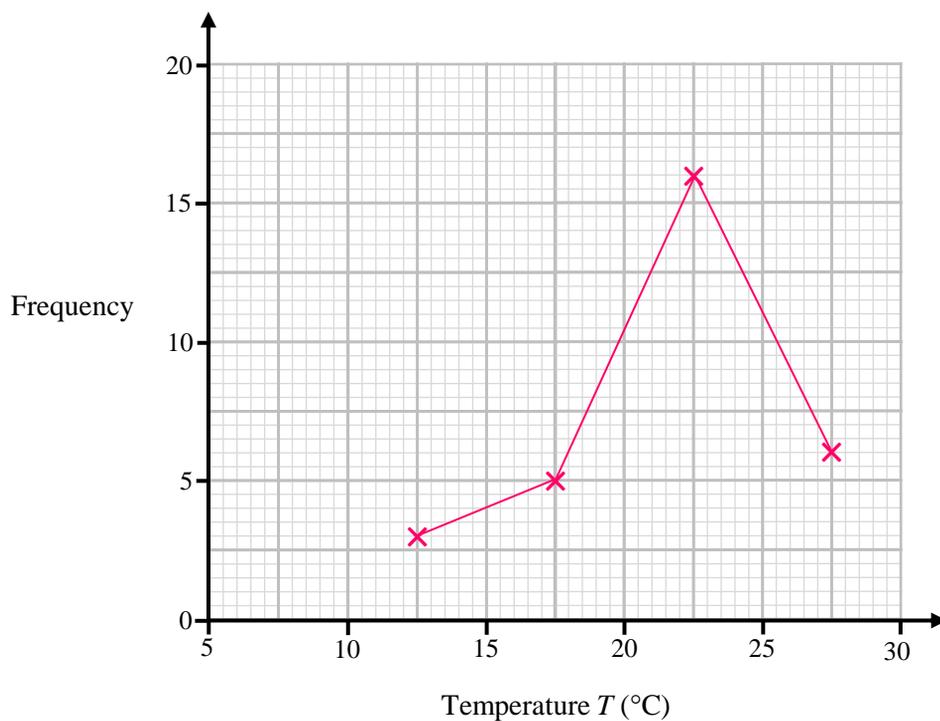
(Total for Question 6 is 2 marks)



7 The table shows information about the Temperature,  $T$  ( $^{\circ}\text{C}$ ), of each of the day during June.

Temperature $T$ ( $^{\circ}\text{C}$ )	Frequency
$10 < T \leq 15$	3
$15 < T \leq 20$	5
$20 < T \leq 25$	16
$25 < T \leq 30$	6

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



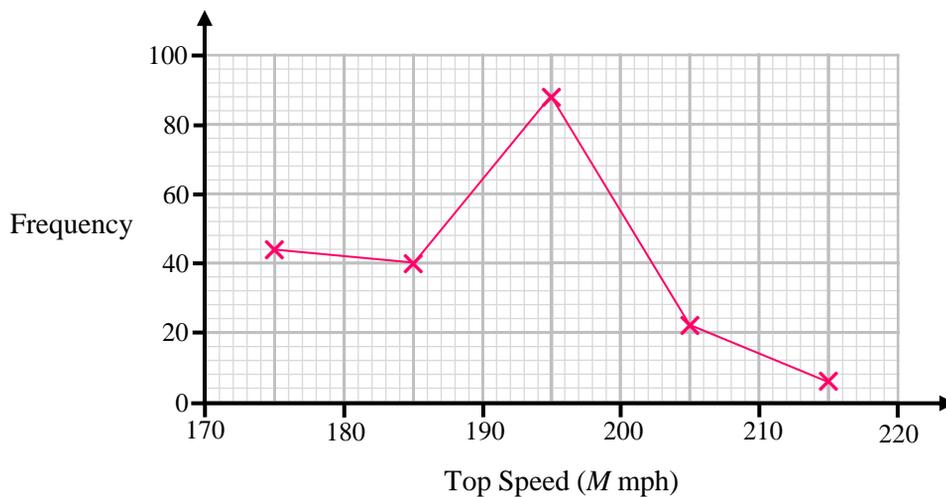
(Total for Question 7 is 2 marks)



8 The table shows information about the top speed,  $M$  mph, of 200 sports cars.

Top Speed ( $M$ mph)	Frequency
$170 < M \leq 180$	44
$180 < M \leq 190$	40
$190 < M \leq 200$	88
$200 < M \leq 210$	22
$210 < M \leq 220$	6

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



(Total for Question 8 is 2 marks)

