

Representing Statistical Data Revision

(a)

The length in mm of 80 leaves is recorded in a grouped frequency table.

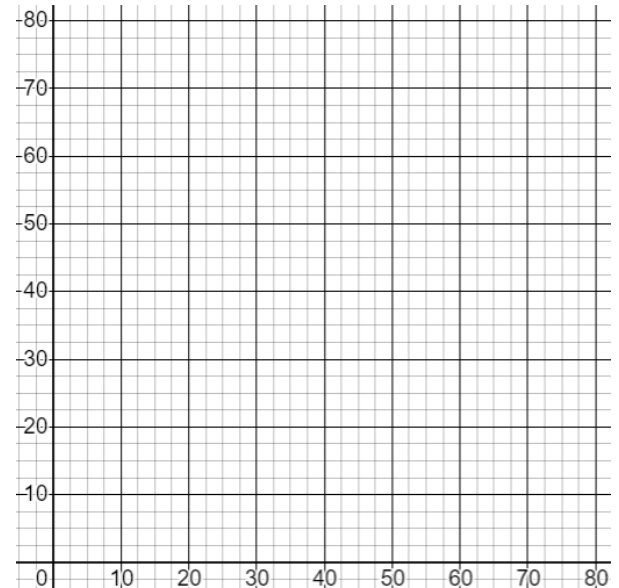
Complete a cumulative frequency table.

| Length L (mm) | Frequency |
|--------------------|-----------|
| $20 < L \leq 30$ | 4 |
| $30 < L \leq 40$ | 7 |
| $40 < L \leq 50$ | 15 |
| $50 < L \leq 60$ | 23 |
| $60 < L \leq 70$ | 22 |
| $70 < L \leq 80$ | 9 |

| Length L (mm) | Cumulative Frequency |
|--------------------|----------------------|
| $20 < L \leq 30$ | |
| $20 < L \leq 40$ | |
| $20 < L \leq 50$ | |
| $20 < L \leq 60$ | |
| $20 < L \leq 70$ | |
| $20 < L \leq 80$ | |

(b)

Plot a cumulative frequency graph.



(c)

- (i) Find the median length.

- (ii) Find the interquartile range of lengths.

- (iii) Find an estimate for the number of leaves greater than 75 mm in length.

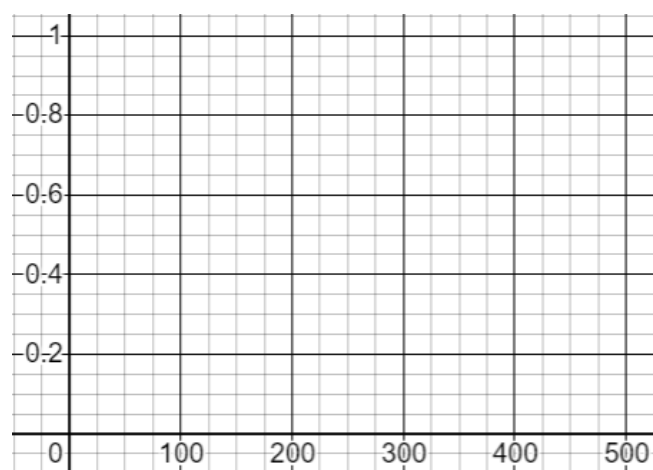
(a)

The areas in m^2 of 200 gardens are recorded in a grouped frequency table. Calculate the frequency density.

| Area (m^2) | Frequency | | |
|--------------------|-----------|--|--|
| $0 < A \leq 50$ | 10 | | |
| $50 < A \leq 100$ | 25 | | |
| $100 < A \leq 200$ | 80 | | |
| $200 < A \leq 300$ | 65 | | |
| $300 < A \leq 500$ | 20 | | |

(b)

Plot a histogram.



(c)

- (i) Use your histogram to estimate the number of gardens that are larger than $220 m^2$.

- (ii) Use your histogram to estimate the median garden size.