**Representing Statistical Data**

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| **1.** The length in mm of 80 leaves is recorded in a grouped frequency table.

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| 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 |

 | (a) Complete a cumulative frequency table.

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| 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) Find the median length.(d) Find the interquartile range of lengths.(e) Find an estimate for the number of leaves greater than 75 mm in length. |
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| **2.** The areas in $m^{2} $of 200 gardens are recorded in a grouped frequency table.

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| 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 |  |  |

 | (a) Plot a histogram. | (b) Use your histogram to estimate the number of gardens that are larger than $220 m^{2}$.(c) Use your histogram to estimate the median garden size. |