1. Sunny is doing a science experiment about the growth of sunflower seeds.

Here is a stem and leaf diagram showing the heights of the 15 sunflowers after 5 weeks.

## stem and leaf diagram

| 3 | 8 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 4 | 1 | 6 | 7 | 9 |  |
| 5 | 0 | 2 | 6 | 8 | 8 |
| 6 | 1 | 4 | 8 | 9 |  |
| 7 | 2 |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

long-winded table


Key: $3 \mid 8=38 \mathrm{~cm}$

Write the heights in the long-winded table.
The first 4 heights are written for you.
2. The ages of some pizza delivery cyclists are written below

These six ages have already been added to the "rough" stem and leaf diagram.
(17)



(a) Add these elven ages to the "rough" stem and leaf.

| 18 | 20 | 31 | 17 | 21 | 18 | 19 | 22 | 24 | 17 | 32 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

"rough" stem and leaf

| 1 | 7 | 9 | 8 | 7 |
| :--- | :--- | :--- | :--- | :--- |
| 2 | 3 |  |  |  |
| 3 | 5 |  |  |  |

(b) Complete the ordered stem and leaf diagram.

Remember to complete the key.
ordered stem and leaf
$\qquad$

Key:
3. Here are the ages of 16 managers.

| 47 | 27 | 52 | 48 | 31 | 23 | 29 | 30 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 36 | 41 | 38 | 33 | 28 | 40 | 35 | 41 |

Show this information in an ordered stem and leaf diagram.
You must include a key.

4. $\qquad$
5. The stem and leaf shows the heights, in centimetres, of 17 tomato plants.

| 2 | 8 |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 3 | 4 | 6 | 7 | 7 | 7 | 8 | 9 |
| 4 | 0 | 1 | 2 | 4 | 5 | 6 | 8 |
| 5 | 3 | 7 |  |  |  |  |  |

Key: $2 \mid 3=23 \mathrm{~cm}$
(a) Write down the mode.
(b) Work out the range.
(c) Write down the median.

One of the plants is chosen, at random
(d) Work out the probability that the plant is over 45 cm high.
6. Rosa collected some information about the diameter of 23 allium flowers.

This information is shown in the stem and leaf diagram.

| 4 | 1 | 5 | 5 |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 5 | 4 | 6 | 7 | 9 |  |  |
| 6 | 0 | 1 | 1 | 2 | 3 | 6 |
| 7 | 1 | 2 | 3 | 8 |  |  |
| 8 | 1 | 2 | 5 | 9 |  |  |
| 9 | 0 | 1 |  |  |  |  |

Key: $7 \mid 2=7.2$ centimetres
(a) Work out the median or (b) mode or (c) range or (d) probability of more less than ...
$\{$ Key could also be Key: $7 \mid 2=£ 72000$ OR Key: $7 \mid 2=720$ millilitres etc. $\}$
7. Here are the weights, in grams, of 15 dried dates.

$$
\begin{array}{ccccccccccccccc}
7.0 & 5.0 & 4.8 & 6.0 & 6.7 & 5.7 & 4.9 & 5.5 & 6.1 & 7.4 & 7.1 & 6.5 & 6.9 & 5.8 & 6.3
\end{array}
$$

(a) Show this information in an ordered stem and leaf diagram.
(b) Work out the median or (c) mode or (d) range or (e) probability of more less than ...
\{Data could also be $0.74,0.57$ etc OR 740, 570 etc OR 74,57 but also 102 etc \}
8. $\qquad$
9. $\{$ See layer 6 for first part of question $\}$
(a) Work out the lower quartile $\{\mathrm{OR}$ upper quartile $\}$
(b) Work out the interquartile range

