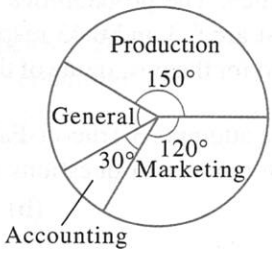
11. The pie chart shows the number of staff in each department of a company. The number of staff in the accounting department is 5.

(a) Find the total number of staff in the company.

(b) Find the number of staff in the General department.

(c) Represent the data by a bar graph.

Number of staff in different departments



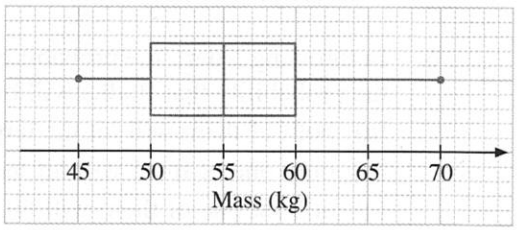
12. The box-and-whisker plot shows the distribution of the masses of the students in a class.

(a) Find the range of the masses.

(b) Find the interquartile range of the masses.

(c) If a student in the class is selected at random, find the probability that his/her mass is greater than 60 kg.

Box-and-whisker plot for the masses of students



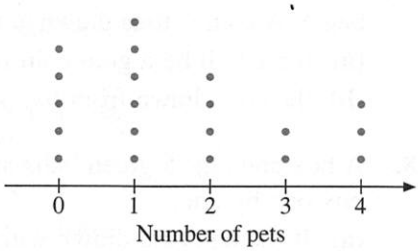
13. The dot diagram shows the number of pets in each household as concluded from a survey. Find

(a) the percentage of households that have at least 3 pets,

(b) the probability that two households, chosen at random, will have a total of not more than 2 pets,

(c) the mean and the standard deviation of the data.

Dot diagram for the number of pets in a household



14. $A = \{14, x - 2, x - 4, x - 5 \text{ and } x + 16\}$ and $B = \{p, q, r, s\}$ are two data sets. The median of data set A is 7. It is known that $p + q + r + s = 56$ and $p^2 + q^2 + r^2 + s^2 = 830$. Find

(a) the value of x,

(b) the mean and the standard deviation of

(i) data set A,

(ii) data set B,

(iii) the combined data set of A and B.

15. The stem-and-leaf diagram shows the distribution of the lengths of the fish caught by Suresh in a day. The numbers a and b are non-negative digits. The median and range of the data are 23 cm and 22 cm respectively.

(a) Find the value of a.

(b) Find the value of b.

(c) Find the interquartile range of the data.

(d) If two of the fish caught by Suresh are selected at random, find the probability that

(i) both fish are longer than 25 cm,

(ii) at least one of them is longer than 25 cm.

Stem-and-leaf diagram for the lengths of fish

Stem	Leaf
1	a 4
1	5 7 8
2	0 0 2 b 4 4
2	5 6 8 9
3	3

Key: 1 | 4 means 14 cm