



MATHS

BOOKS - CAMBRIDGE MATHS (KANNADA ENGLISH)

STATISTICS

Exercise 14 1

1. Give five examples of data that you can collect from your day-to-day life.



[Watch Video Solution](#)

Exercise 14 2

1. The blood groups of 30 students of Class VIII are recorded as follows:

$A, B, O, O, AB, O, A, O, B, A,$
 $O, B, A, O, O, A, AB, O, A, A,$
 $O, O, AB, B, A, O, B, A, B, O$

Represent this data in the form of a frequency distribution table. Which is the most common, and which is the rarest, blood group among these students ?



[Watch Video Solution](#)

2. The distance (in km) of 40 engineers from their residence to their place of work were found as follows :

5 3 10 20 25 11 13 7 12 31
19 10 12 17 18 11 32 17 16 2
7 9 7 8 3 5 12 15 18 3
12 14 2 9 6 15 15 7 6 12

Construct a grouped frequency distribution table with class size for the data given above taking the first interval as 0-5 (5 not included). What main features do you observe from this tabular representation ?



[Watch Video Solution](#)

3. The relative humidity (in %) of a certain city for a month of 30 days was as follows :

98.1 98.6 99.2 90.3 86.5 95.3 92.9 96.3 94.2 95.1
89.2 92.3 97.1 93.5 92.7 95.1 97.2 93.3 95.2 97.3
96.2 92.1 84.9 90.2 95.7 98.3 97.3 96.1 92.1 89

(ii) Which month or season do you think this data is about ?



[Watch Video Solution](#)

4. The heights of 50 students , measured to the nearest centimetres, have been found to be as follows :

161	150	154	165	168	161	154	162	150	151
162	164	171	165	158	154	156	172	160	170
153	159	161	170	162	165	166	168	165	164
154	152	153	156	158	162	160	161	173	166
161	159	162	167	168	159	158	153	154	159

(i) Represent the data given above by a grouped frequency distribution table, taking the class intervals as 160-165,165-170 ,etc.



[Watch Video Solution](#)

5. A study was conducted to find out the concentration of sulphur dioxide in the air in parts per million (ppm) of a certain city. The data obtained for 30 days is as follows :

0.03	0.08	0.08	0.09	0.04	0.17
0.16	0.05	0.02	0.06	0.18	0.20
0.11	0.08	0.12	0.13	0.22	0.07
0.08	0.01	0.10	0.06	0.09	0.18
0.11	0.07	0.05	0.07	0.01	0.04

(i) Makes a grouped frequency distribution table for this data with class intervals as 0.00-0.04, 0.04-0.08, and so on.



[Watch Video Solution](#)

6. Three coins were tossed 30 times simultaneously. Each time number of heads occurring was note down as follows :

0, 1, 2, 2, 1, 2, 3, 1, 3, 0, 1, 3, 1, 1, 2, 2, 0, 1, 2, 1, 3, 0, 0, 1, 1, 2, 3, 2, 2, 0.

Prepare a frequency distribution table for the data given above.



[Watch Video Solution](#)

7. The value of π upto 50 decimal places is given below:

3.14159265358979323846264338327950288419716939937510

(i) Make a frequency distribution of the digits from 0 to 9 after the decimal point.

(ii) What are the least and most frequently occurring digits ?



[Watch Video Solution](#)

8. Thirty children were asked about the number of hours they watched TV programmes in the previous week. The results were found as follows :

1, 6, 2, 3, 5, 12, 5, 8, 4, 8
10, 3, 4, 12, 2, 8, 15, 1, 17, 6
3, 2, 8, 5, 9, 6, 8, 7, 14, 12

- (i) Make a grouped frequency distribution table for this data 5 and one of the class intervals as 5-10.
- (ii) How many children watched television for 15 or more hours a week ?



[Watch Video Solution](#)

9. A company manufactures car batteries of a particular type. The lives (in years) of 40 such batteries were

recorded as follows :

2.6 3.0 3.7 3.2 2.2 4.1 3.5 4.5 3.5 2.3 3.2
3.4 3.8 3.2 4.6 3.7 2.5 4.4 3.4 3.3 2.9 3.0
4.3 2.8 3.5 3.2 3.9 3.2 3.2 3.1 3.7 3.4 4.6
3.8 3.2 2.6 3.5 4.2 2.9 3.6

Construct a grouped frequency distribution table for this data, using class intervals of size 0.5 starting from the intervals 2 – 2.5



[Watch Video Solution](#)

Exercise 14 3

1. A survey conducted by an organisation for the cause of illness and death among the women between the ages 15-44 (in years) worldwide, found the following figures (in

%) :

S.No.	Causes	Female fatality rate (%)
1.	Reproductive health conditions	31.8
2.	Neuropsychiatric conditions	25.4
3.	Injuries	12.4
4.	Cardiovascular conditions	4.3
5.	Respiratory conditions	4.1
6.	Other causes	22.0

(ii) Which condition is the major cause of women's ill health and death worldwide ?



[Watch Video Solution](#)

2. The following data on the number of girls of the nearest ten per thousand boys in different sections of Indian society is given below.

Section	Number of girls per thousand boys
Scheduled Caste (SC)	940
Scheduled Tribe (ST)	970
Non SC/ST	920
Backward districts	950
Non-backward districts	920
Rural	930
Urban	910

(i) Represent the information above by a bar graph.

 **Watch Video Solution**

3. Given below are the seats won by different political parties in the polling outcome of a state assembly elections:

Political Party	A	B	C	D	E	F
Seats Won	75	55	37	29	10	37

(i) Draw a bar graph to represent the polling results.



[Watch Video Solution](#)

4. The length of 40 leaves of a plant are measured correct to one millimetre, and the obtained data is represented in the following table :

Length (in mm)	Number of leaves
118 - 126	3
127 - 135	5
136 - 144	9
145 - 153	12
154 - 162	5
163 - 171	4
172 - 180	2

(iii) Is it correct to conclude that the maximum number of leaves are 153 mm long ? Why ?

[Watch Video Solution](#)

5. The following table gives the life times of 400 neon lamps :

Life time (in hours)	Number of lamps
300 - 400	14
400 - 500	56
500 - 600	66
600 - 700	86
700 - 800	74
800 - 900	62
900 - 1000	48

(ii) How many lamps have a life time of more than 700 hours ?

 [Watch Video Solution](#)

6. The following table gives the distribution of students of two sections according to the marks obtained by them

:

Section A		Section B	
Marks	Frequency	Marks	Frequency
0 - 10	3	0 - 10	5
10 - 20	9	10 - 20	19
20 - 30	17	20 - 30	15
30 - 40	12	30 - 40	10
40 - 50	9	40 - 50	1

Represent the marks of the students of both the sections on the same graph by two frequency polygons. From the two polygons compare the performance of the two sections.



[Watch Video Solution](#)

7. The runs scored by two teams A and B on the first 60 balls in a cricket match are given below :

Number of balls	Team A	Team B
1-6	2	5
7-12	1	6
13-18	8	2
19-24	9	10
25-30	4	5
31-36	5	6
37-42	6	3
43-48	10	4
49-54	6	8
55-60	2	10

Represent the data of both the teams on the same graph by frequency polygons.



[Watch Video Solution](#)

8. A random survey of the number of children of various age groups playing in a park was found as follows :

Age (in years)	Number of children
1 - 2	5
2 - 3	3
3 - 5	6
5 - 7	12
7 - 10	9
10 - 15	10
15 - 17	4

Draw a histogram to represent the data above.



[Watch Video Solution](#)

9. 100 surnames were randomly randomly picked up from a local telephone directory and a frequency distribution of the number of letters in the English alphabet in the surnames was found as follows :

Number of letters	Number of surnames
1 - 4	6
4 - 6	30
6 - 8	44
8 - 12	16
12 - 20	4

(i) Draw a histogram to depict the given information.

 [Watch Video Solution](#)

Exercise 14 4

1. The following number of goals was scored by a team in a series of 10 matches : 2,3,4,5,0,1,3,3,4,3

Find the mean, median and mode of these scores.

 [Watch Video Solution](#)

2. In a mathematics test given to 15 students, the following marks (out of 100) are recorded

41,39,48,52,46,62,54,40,96,52,98,40,42,52,60

Find the mean, median and mode of this data.



[Watch Video Solution](#)

3. The following observations have been arranged in ascending order. If the medium of the data is 63, find the value of x .

29, 32, 48, 50, x , $x + 2$, 72, 78, 84, 95



[Watch Video Solution](#)

4. Find the mode of 14,25,14,28,18,17,18,14,23,22,14 and 18.



[Watch Video Solution](#)

5. Find the mean salary of 60 workers of a factory from the following table :

Salary (in ₹)	Number of workers	Fx
3000	16	48000
4000	12	48000
5000	10	50000
6000	8	48000
7000	6	42000
8000	4	32000
9000	3	27000
10000	1	10000
Total	60	$\Sigma fx = 3,05,000$



[Watch Video Solution](#)

6. Give one example of a situation in which :

(i) The mean is an appropriate measure of central tendency.

(ii) The mean is not an appropriate measure of central tendency but the median is an appropriate measure of central tendency.



[Watch Video Solution](#)