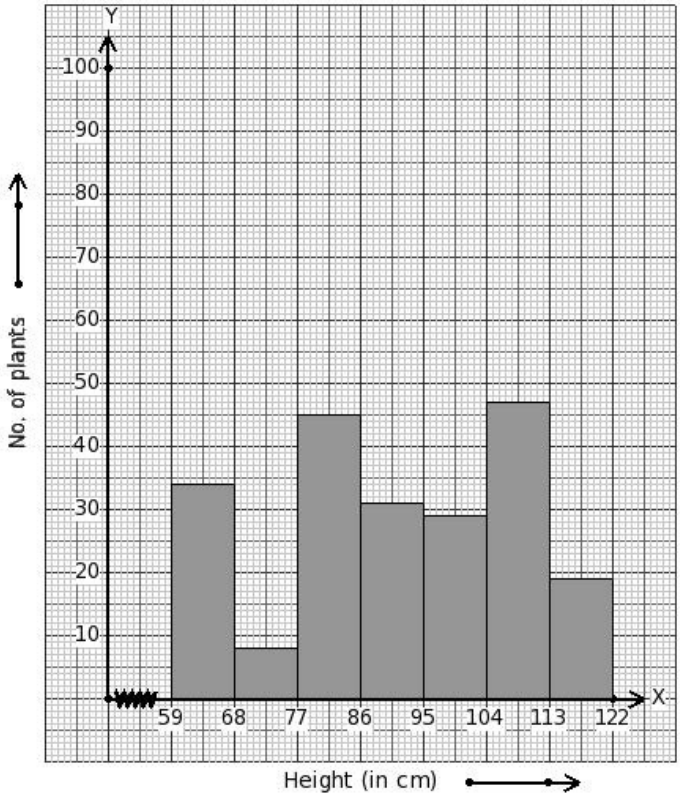
EduSahara™ Worksheet

Name : Chapter Based Worksheet

Chapter : Statistics

Grade : SSC Grade IX

1. Heights of 213 plants (in cm) are given below. Identify the class interval table for the given histogram.



(i)

Height (in cm)	59 - 68	68 - 77	77 - 86	86 - 95	95 - 104	104 - 113	113 - 122
No. of plants	34	8	45	31	29	47	19

(ii)

Height (in cm)	59 - 68	68 - 77	77 - 86	86 - 95	95 - 104	104 - 113	113 - 122
No. of plants	34	8	45	26	29	47	19

(iii)

Height (in cm)	59 - 68	68 - 77	77 - 86	86 - 95	95 - 104	104 - 113	113 - 122
No. of plants	34	8	40	31	29	47	19

(iv)

Height (in cm)	59 - 68	68 - 77	77 - 86	86 - 95	95 - 104	104 - 113	113 - 122
No. of plants	34	19	45	31	29	47	8

(v)

Height (in cm)	59 - 68	68 - 77	77 - 86	86 - 95	95 - 104	104 - 113	113 - 122
No. of plants	34	45	8	31	29	47	19

2. Weights of 10 students are given below. Find the mean.

Weight (in kg)	42	46	56	59
No. of students	2	1	3	4

(i) $\frac{269}{5}$ kg (ii) $\frac{272}{5}$ kg (iii) $\frac{267}{5}$ kg (iv) $\frac{268}{5}$ kg (v) $\frac{277}{5}$ kg

3. The marks obtained by 15 students in a test are given below. Find their mode marks.

40 29 10 9 9 37 36 50 16 21 46 11 44 30 32

(i) 7 (ii) 9 (iii) 10 (iv) 12 (v) 8

4. If the sample data with range 70 has to be divided into 4 class intervals, then the length of the class is

(i) 19 (ii) 16 (iii) 18 (iv) 20 (v) 17

5. Scores of 20 students are given below. Find the mean.

Score	72	79	80	82	84	85	87	88	90
No. of students	2	1	5	2	1	1	3	4	1

(i) $\frac{1679}{20}$ (ii) $\frac{1661}{20}$ (iii) 83 (iv) $\frac{1699}{20}$ (v) $\frac{1659}{20}$

6. Following are the ages (in years) of patients getting medical treatment in a hospital. Identify the cumulative frequency of the given grouped data.

Age (in years)	10 - 20	21 - 31	32 - 42	43 - 53	54 - 64	65 - 75	76 - 86	87 - 97
No. of Patients	33	88	36	77	66	17	16	67

(i)

Age (in years)	**Cumulative Frequency**
10 - 20	33
21 - 31	121
32 - 42	157
43 - 53	234
54 - 64	295
65 - 75	312
76 - 86	328
87 - 97	395

(ii)

Age (in years)	**Cumulative Frequency**
10 - 20	33
21 - 31	121
32 - 42	159
43 - 53	236
54 - 64	302
65 - 75	319
76 - 86	335
87 - 97	402

(iii)

Age (in years)	**Cumulative Frequency**
10 - 20	33
21 - 31	121
32 - 42	198
43 - 53	234
54 - 64	300
65 - 75	317
76 - 86	333
87 - 97	400

(iv)

Age (in years)	**Cumulative Frequency**
10 - 20	33
21 - 31	121
32 - 42	157
43 - 53	234
54 - 64	300
65 - 75	317
76 - 86	333
87 - 97	400

(v)

Age (in years)	**Cumulative Frequency**
10 - 20	33
21 - 31	100
32 - 42	136
43 - 53	213
54 - 64	279
65 - 75	296
76 - 86	312
87 - 97	400

7. The marks obtained by 16 students in an examination are given below.
Represent the data in the form of a frequency distribution table in exclusive form taking class size 7.

41 80 71 59 75 68 77 80 54 43 62 45 79 75 43 80

(i)

Marks	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
No. of Students	4	1	5	2	3	5

(ii)

Marks	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
No. of Students	4	1	1	2	3	5

(iii)

Marks	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
No. of Students	4	5	1	2	3	1

(iv)

Marks	41 - 48	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83
No. of Students	4	1	1	6	3	5

8. The mid value of the class with frequency x is

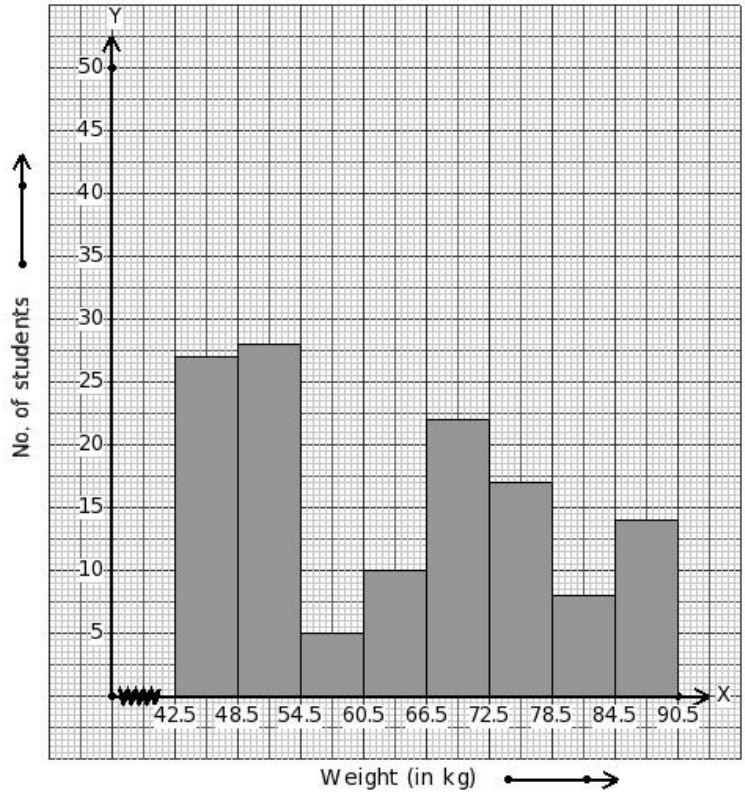
Class-Interval	**Frequency**
20 - 25	28
26 - 31	29
32 - 37	x
38 - 43	12
44 - 49	3

(i) $\frac{69}{2}$ (ii) $\frac{67}{2}$ (iii) $\frac{137}{4}$ (iv) $\frac{71}{2}$ (v) 35

9. Given the mean of 12 samples as $6\frac{1}{6}$,
what is the new mean if two samples 8 and 7 are removed ?

(i) $\frac{59}{10}$ (ii) $\frac{23}{4}$ (iii) $\frac{49}{8}$ (iv) $\frac{61}{10}$ (v) $\frac{57}{10}$

10. Identify the class interval table for the given histogram.



(i)

Weight (in kg)	43 - 48	49 - 54	55 - 60	61 - 66	67 - 72	73 - 78	79 - 84	85 - 90
No. of students	27	28	10	5	22	17	8	14

(ii)

Weight (in kg)	43 - 48	49 - 54	55 - 60	61 - 66	67 - 72	73 - 78	79 - 84	85 - 90
No. of students	27	14	5	10	22	17	8	28

(iii)

Weight (in kg)	43 - 48	49 - 54	55 - 60	61 - 66	67 - 72	73 - 78	79 - 84	85 - 90
No. of students	27	28	5	10	22	17	8	14

(iv)

Weight (in kg)	43 - 48	49 - 54	55 - 60	61 - 66	67 - 72	73 - 78	79 - 84	85 - 90
No. of students	27	28	5	10	27	17	8	14

(v)

Weight (in kg)	43 - 48	49 - 54	55 - 60	61 - 66	67 - 72	73 - 78	79 - 84	85 - 90
No. of students	27	28	2	10	22	17	8	14

11. If the upper and lower limit of class interval are 21 and 11 respectively, then the class interval is

(i) 10.5-21 (ii) 11.5-20.5 (iii) 11-21.5 (iv) 11-21 (v) 10.5-21.5

12. If some random sample data is arranged in a frequency distribution table in exclusive form with 3 - 13 as the first class, then the observation 23 falls in which class?

(i) 23-33 (ii) 22.5-33.5 (iii) 22-32 (iv) 23.5-32.5 (v) 24-34

13. Heights of 31 plants are given below. Find the mode.

Height (in cm)	51	56	59	65	72	78	80	82	97	99
No. of plants	3	6	2	4	2	5	3	3	2	1

(i) 54 cm (ii) 58 cm (iii) 57 cm (iv) 56 cm (v) 55 cm

14. Given the mean of 10 samples as $3\frac{1}{10}$,

what is the new mean if two samples 4 and 10 are added ?

(i) $\frac{7}{2}$ (ii) $\frac{15}{4}$ (iii) $\frac{17}{4}$ (iv) $\frac{9}{2}$ (v) $\frac{13}{4}$

15. The number of children in 21 families are given below. Identify the frequency distribution table for the given data.

0 2 3 1 2 1 4 1 1 5 0 2 2 0 2 3 3 0 1 1 1

(i)

No. of children	0	1	2	3	4	5
No. of families	5	7	5	2	1	1

(ii)

No. of children	0	1	2	3	4	5
No. of families	4	7	5	3	1	1

(iii)

No. of children	0	1	2	3	4	5
No. of families	5	8	1	3	1	3

(iv)

No. of children	0	1	2	3	4	5
No. of families	4	1	6	4	3	3

16. Heights of 13 plants (in cm) are given below. Find the mode height.

60 94 90 64 54 80 76 54 77 74 85 92 54

(i) 56 cm (ii) 54 cm (iii) 52 cm (iv) 55 cm (v) 53 cm

17. Heights of 14 plants (in cm) are given below. Find the median height.

75 95 74 81 92 67 68 82 70 89 60 87 52 89

(i) 76 cm (ii) 78 cm (iii) 77 cm (iv) 79 cm (v) 80 cm

18. Rainfall of 12 days (in mm) are given below. Find the median rainfall.

6 13 12 8 13 10 9 12 5 10 12 11

(i) $\frac{23}{2}$ mm (ii) $\frac{25}{2}$ mm (iii) $\frac{21}{2}$ mm (iv) 11 mm

19. Daily wages of 15 labourers (in ₹) are given below. Find the mean wage.

487 415 428 420 434 498 393 498 470 305 442 352 307 318 482

(i) ₹417.60 (ii) ₹418.60 (iii) ₹416.80 (iv) ₹416.60 (v) ₹417.00

20. Find the mean of first 9 multiples of 11.

(i) 54 (ii) 56 (iii) 52 (iv) 58 (v) 55

21. The daily wages (in rupees) of 18 workers in a factory are given below. Represent the data in the form of a frequency distribution in inclusive form taking class size 30.

291 277 250 256 293 268 228 249 228 299 212 233 253 237 239 222 278 204

(i)

Wages (in rupees)	204 - 233	234 - 263	264 - 293	294 - 323
No. of Workers	6	8	5	1

(ii)

Wages (in rupees)	204 - 233	234 - 263	264 - 293	294 - 323
No. of Workers	6	6	5	1

(iii)

Wages (in rupees)	204 - 233	234 - 263	264 - 293	294 - 323
No. of Workers	6	6	8	1

(iv)

Wages (in rupees)	204 - 233	234 - 263	264 - 293	294 - 323
No. of Workers	1	6	5	6

(v)

Wages (in rupees)	204 - 233	234 - 263	264 - 293	294 - 323
No. of Workers	6	5	6	1

22. The marks obtained by 14 students in a test are given below. Find their median marks.

50 2 26 2 4 5 38 20 4 47 2 11 21 12

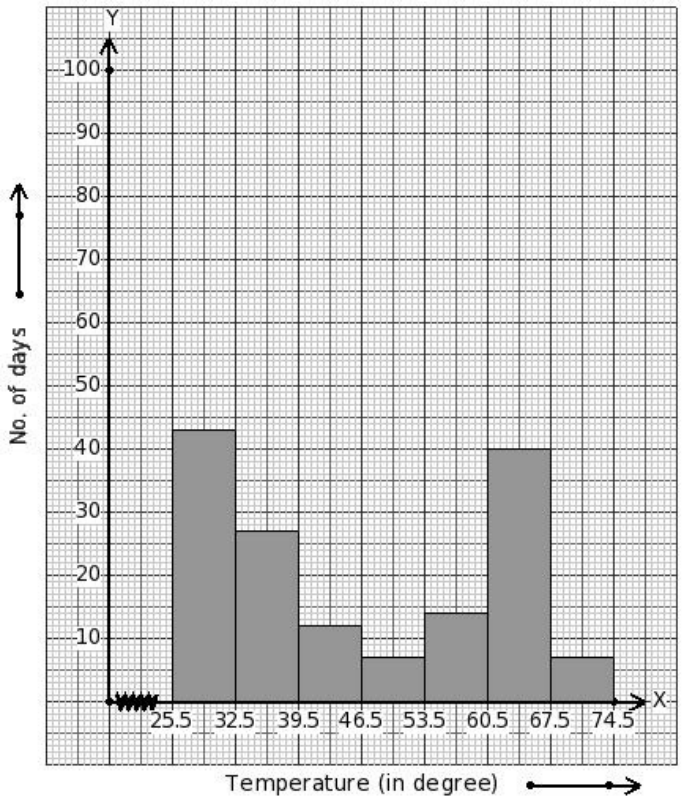
(i) $\frac{23}{2}$ (ii) $\frac{21}{2}$ (iii) 12 (iv) $\frac{25}{2}$ (v) $\frac{45}{4}$

23. Weights of 13 students (in kg) are given below. Find the median weight.

41 43 42 50 55 60 48 43 56 46 58 59 42

(i) 49 kg (ii) 50 kg (iii) 47 kg (iv) 46 kg (v) 48 kg

24. Temperatures of 150 days (in °C) are given below. Identify the class interval table for the given histogram.



(i)

Temperature (in degree)	26 - 32	33 - 39	40 - 46	47 - 53	54 - 60	61 - 67	68 - 74
No. of days	43	27	12	12	14	40	7

(ii)

Temperature (in degree)	26 - 32	33 - 39	40 - 46	47 - 53	54 - 60	61 - 67	68 - 74
No. of days	43	7	12	7	14	40	27

(iii)

Temperature (in degree)	26 - 32	33 - 39	40 - 46	47 - 53	54 - 60	61 - 67	68 - 74
No. of days	43	27	10	7	14	40	7

(iv)

Temperature (in degree)	26 - 32	33 - 39	40 - 46	47 - 53	54 - 60	61 - 67	68 - 74
No. of days	43	27	12	7	14	40	7

(v)

Temperature (in degree)	26 - 32	33 - 39	40 - 46	47 - 53	54 - 60	61 - 67	68 - 74
No. of days	43	12	27	7	14	40	7

25. Temperatures of 21 days are given below. Find the mode.

Temperature (in degree C)	26	29	30	31	32	33	34
No. of days	6	5	1	1	3	3	2

(i) 28 °C (ii) 25 °C (iii) 27 °C (iv) 24 °C (v) 26 °C

Assignment Key

1) (i)	2) (iii)	3) (ii)	4) (iii)	5) (v)	6) (iv)
7) (ii)	8) (i)	9) (i)	10) (iii)	11) (iv)	12) (i)
13) (iv)	14) (ii)	15) (ii)	16) (ii)	17) (ii)	18) (iii)
19) (iv)	20) (v)	21) (ii)	22) (i)	23) (v)	24) (iv)
25) (v)					