

EduSahara™ Learning Center Assignment

Grade : Class VIII, SSC
Chapter : Frequency Distribution Tables and Graphs
Name : Cumulative Frequency
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Construct a frequency distribution table from the following cumulative frequency distribution

1.

Class-Interval	Cumulative Frequency
23 - 33	15
33 - 43	31
43 - 53	47
53 - 63	56
63 - 73	68

(i)

Class-Interval	23 - 33	33 - 43	43 - 53	53 - 63	63 - 73
Frequency	15	12	16	9	12

(ii)

Class-Interval	23 - 33	33 - 43	43 - 53	53 - 63	63 - 73
Frequency	15	12	16	9	16

(iii)

Class-Interval	23 - 33	33 - 43	43 - 53	53 - 63	63 - 73
Frequency	15	16	12	9	12

(iv)

Class-Interval	23 - 33	33 - 43	43 - 53	53 - 63	63 - 73
Frequency	15	16	16	9	12

Construct a frequency distribution table from the following cumulative frequency distribution

2.

Class-Interval	Cumulative Frequency
26 - 33	9
34 - 41	20
42 - 49	27
50 - 57	36
58 - 65	44
66 - 73	55
74 - 81	60
82 - 89	72

(i)	Class-Interval	26 - 33	34 - 41	42 - 49	50 - 57	58 - 65	66 - 73	74 - 81	82 - 89
	Frequency	9	11	7	9	5	11	5	12

(ii)	Class-Interval	26 - 33	34 - 41	42 - 49	50 - 57	58 - 65	66 - 73	74 - 81	82 - 89
	Frequency	9	12	7	9	8	11	5	11

(iii)	Class-Interval	26 - 33	34 - 41	42 - 49	50 - 57	58 - 65	66 - 73	74 - 81	82 - 89
	Frequency	9	11	9	7	8	11	5	12

(iv)	Class-Interval	26 - 33	34 - 41	42 - 49	50 - 57	58 - 65	66 - 73	74 - 81	82 - 89
	Frequency	9	11	2	9	8	11	5	12

(v)	Class-Interval	26 - 33	34 - 41	42 - 49	50 - 57	58 - 65	66 - 73	74 - 81	82 - 89
	Frequency	9	11	7	9	8	11	5	12

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

3.

Age (in years)	10 - 20	21 - 31	32 - 42	43 - 53	54 - 64
No. of Patients	66	25	70	62	18

(i)

Age (in years)	Cumulative Frequency
10 - 20	66
21 - 31	84
32 - 42	154
43 - 53	216
54 - 64	241

(ii)

Age (in years)	Cumulative Frequency
10 - 20	66
21 - 31	89
32 - 42	159
43 - 53	221
54 - 64	239

(iii)

Age (in years)	Cumulative Frequency
10 - 20	66
21 - 31	136
32 - 42	161
43 - 53	223
54 - 64	241

(iv)

Age (in years)	Cumulative Frequency
10 - 20	66
21 - 31	91
32 - 42	164
43 - 53	226
54 - 64	244

(v)

Age (in years)	Cumulative Frequency
10 - 20	66
21 - 31	91

32 - 42	161
43 - 53	223
54 - 64	241

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

4.

Age (in years)	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45	45 - 50	50 - 55	55 - 60
No. of Patients	75	35	32	68	15	52	52	36

(i)

Age (in years)	Cumulative Frequency
20 - 25	75
25 - 30	110
30 - 35	178
35 - 40	210
40 - 45	225
45 - 50	277
50 - 55	329
55 - 60	365

(ii)

Age (in years)	Cumulative Frequency
20 - 25	75
25 - 30	110
30 - 35	142
35 - 40	210
40 - 45	225
45 - 50	277
50 - 55	329
55 - 60	365

(iii)

Age (in years)	Cumulative Frequency
20 - 25	75
25 - 30	110
30 - 35	146
35 - 40	214
40 - 45	229
45 - 50	281
50 - 55	333
55 - 60	369

(iv)

Age (in years)	Cumulative Frequency
20 - 25	75
25 - 30	110
30 - 35	142
35 - 40	210
40 - 45	230
45 - 50	282
50 - 55	334
55 - 60	370

(v)

Age (in years)	Cumulative Frequency
20 - 25	75
25 - 30	111
30 - 35	143
35 - 40	211
40 - 45	226
45 - 50	278

50 - 55	330
55 - 60	365

Following are the daily wages (in rupees) of labourers working in a factory. Identify the cumulative frequency of the given grouped data.

5.

Wages (in rupees)	200 - 230	231 - 261	262 - 292	293 - 323	324 - 354	355 - 385
Labourers	10	3	12	12	9	9

(i)

Wages (in rupees)	Cumulative Frequency
200 - 230	10
231 - 261	22
262 - 292	25
293 - 323	37
324 - 354	46
355 - 385	55

(ii)

Wages (in rupees)	Cumulative Frequency
200 - 230	10
231 - 261	19
262 - 292	31
293 - 323	43
324 - 354	52
355 - 385	55

(iii)

Wages (in rupees)	Cumulative Frequency
200 - 230	10
231 - 261	13
262 - 292	21
293 - 323	33
324 - 354	42
355 - 385	51

(iv)

Wages (in rupees)	Cumulative Frequency
200 - 230	10
231 - 261	13
262 - 292	25
293 - 323	33
324 - 354	42
355 - 385	51

(v)

Wages (in rupees)	Cumulative Frequency
200 - 230	10
231 - 261	13
262 - 292	25
293 - 323	37
324 - 354	46
355 - 385	55

Following are the daily wages (in rupees) of labourers working in a factory. Identify the cumulative frequency of the given grouped data.

6.

Wages (in rupees)	300 - 340	340 - 380	380 - 420	420 - 460	460 - 500	500 - 540
Labourers	17	4	15	9	18	18

(i)	Wages (in rupees)	Cumulative Frequency	(ii)	Wages (in rupees)	Cumulative Frequency
	300 - 340	17		300 - 340	17
	340 - 380	21		340 - 380	35
	380 - 420	38		380 - 420	50
	420 - 460	47		420 - 460	59
	460 - 500	65		460 - 500	77
	500 - 540	83		500 - 540	81

(iii)	Wages (in rupees)	Cumulative Frequency	(iv)	Wages (in rupees)	Cumulative Frequency
	300 - 340	17		300 - 340	17
	340 - 380	21		340 - 380	21
	380 - 420	36		380 - 420	36
	420 - 460	45		420 - 460	40
	460 - 500	63		460 - 500	58
	500 - 540	81		500 - 540	76

(v)	Wages (in rupees)	Cumulative Frequency
	300 - 340	17
	340 - 380	32
	380 - 420	36
	420 - 460	45
	460 - 500	63
	500 - 540	81

Identify the cumulative frequency of the given grouped data.

7.

class interval	34 - 44	45 - 55	56 - 66	67 - 77	78 - 88	89 - 99	100 - 110
frequency	17	14	22	12	16	21	6

(i)	class interval	Cumulative Frequency	(ii)	class interval	Cumulative Frequency
	34 - 44	17		34 - 44	17
	45 - 55	31		45 - 55	31
	56 - 66	50		56 - 66	53
	67 - 77	62		67 - 77	67
	78 - 88	78		78 - 88	83
	89 - 99	99		89 - 99	104

	100 - 110	105		100 - 110	110
	class interval	Cumulative Frequency		class interval	Cumulative Frequency
	34 - 44	17		34 - 44	17
	45 - 55	23		45 - 55	31
(iii)	56 - 66	45	(iv)	56 - 66	53
	67 - 77	57		67 - 77	65
	78 - 88	73		78 - 88	81
	89 - 99	94		89 - 99	102
	100 - 110	108		100 - 110	108
	class interval	Cumulative Frequency			
	34 - 44	17			
	45 - 55	39			
(v)	56 - 66	53			
	67 - 77	65			
	78 - 88	81			
	89 - 99	102			
	100 - 110	108			

Identify the cumulative frequency of the given grouped data.

8.

class interval	14 - 24	24 - 34	34 - 44	44 - 54	54 - 64	64 - 74	74 - 84
frequency	14	10	5	12	11	13	9

	class interval	Cumulative Frequency		class interval	Cumulative Frequency
	14 - 24	14		14 - 24	14
	24 - 34	23		24 - 34	24
(i)	34 - 44	28	(ii)	34 - 44	29
	44 - 54	40		44 - 54	41
	54 - 64	51		54 - 64	52
	64 - 74	64		64 - 74	65
	74 - 84	74		74 - 84	74
	class interval	Cumulative Frequency		class interval	Cumulative Frequency
(iii)	14 - 24	14	(iv)	14 - 24	14
	24 - 34	19		24 - 34	24

34 - 44	29
44 - 54	41
54 - 64	52
64 - 74	65
74 - 84	74

34 - 44	29
44 - 54	38
54 - 64	49
64 - 74	62
74 - 84	71

(v)

class interval	Cumulative Frequency
14 - 24	14
24 - 34	24
34 - 44	32
44 - 54	44
54 - 64	55
64 - 74	68
74 - 84	77

Given class interval table, find the sum of frequencies.

9.

Class-Interval	33 - 40	40 - 47	47 - 54	54 - 61	61 - 68	68 - 75	75 - 82
Frequency	12	26	7	12	2	6	14

(i) 81 (ii) 79 (iii) 80 (iv) 76 (v) 78

Find the cumulative frequency of class 66 - 75 .

10.

Class-Interval	36 - 45	46 - 55	56 - 65	66 - 75	76 - 85	86 - 95	96 - 105
Frequency	10	9	17	16	10	24	20

(i) 53 (ii) 52 (iii) 51 (iv) 54 (v) 49

Find the cumulative frequency of class 47 - 55 .

11.

Class-Interval	31 - 39	39 - 47	47 - 55	55 - 63	63 - 71
Frequency	22	15	9	13	11

(i) 48 (ii) 46 (iii) 47 (iv) 44 (v) 45

12. The following cumulative frequency table represents which of the following frequency distribution

Class-Interval	Cumulative Frequency
36 - 42	16
42 - 48	21
48 - 54	32
54 - 60	40
60 - 66	51
66 - 72	65
72 - 78	70
78 - 84	78

(i)	Class-Interval	36 - 42	42 - 48	48 - 54	54 - 60	60 - 66	66 - 72	72 - 78	78 - 84
	Frequency	16	8	11	8	11	14	5	5

(ii)	Class-Interval	36 - 42	42 - 48	48 - 54	54 - 60	60 - 66	66 - 72	72 - 78	78 - 84
	Frequency	16	5	11	8	7	14	5	8

(iii)	Class-Interval	36 - 42	42 - 48	48 - 54	54 - 60	60 - 66	66 - 72	72 - 78	78 - 84
	Frequency	16	5	13	8	11	14	5	8

(iv)	Class-Interval	36 - 42	42 - 48	48 - 54	54 - 60	60 - 66	66 - 72	72 - 78	78 - 84
	Frequency	16	5	11	8	11	14	5	8

(v)	Class-Interval	36 - 42	42 - 48	48 - 54	54 - 60	60 - 66	66 - 72	72 - 78	78 - 84
	Frequency	16	5	8	11	11	14	5	8

The following cumulative frequency table represents which of the following frequency distribution

13.	Class-Interval	Cumulative Frequency
	31 - 36	61
	36 - 41	45
	41 - 46	40
	46 - 51	26
	51 - 56	13
	56 - 61	6

(i)	Class-Interval	31 - 36	36 - 41	41 - 46	46 - 51	51 - 56	56 - 61
	Frequency	16	5	9	13	7	6

(ii)

Class-Interval	31 - 36	36 - 41	41 - 46	46 - 51	51 - 56	56 - 61
Frequency	16	5	14	11	7	6

(iii)

Class-Interval	31 - 36	36 - 41	41 - 46	46 - 51	51 - 56	56 - 61
Frequency	16	6	14	13	7	5

(iv)

Class-Interval	31 - 36	36 - 41	41 - 46	46 - 51	51 - 56	56 - 61
Frequency	16	14	5	13	7	6

(v)

Class-Interval	31 - 36	36 - 41	41 - 46	46 - 51	51 - 56	56 - 61
Frequency	16	5	14	13	7	6

During the medical check-up of 68 students of a class, their weights in kgs are recorded as follows.

14. Identify the number of students whose weight is less than 55 kg

Class-Interval	39 - 47	47 - 55	55 - 63	63 - 71	71 - 79	79 - 87	87 - 95
Frequency	12	6	7	12	10	9	12

(i) 19 (ii) 16 (iii) 21 (iv) 17 (v) 18

During the medical check-up of 54 students of a class, their weights in kgs are recorded as follows.

15. Identify the number of students whose weight is more than 51 kg

Class-Interval	35 - 43	43 - 51	51 - 59	59 - 67	67 - 75	75 - 83	83 - 91
Frequency	5	9	7	11	10	7	5

(i) 42 (ii) 39 (iii) 40 (iv) 41 (v) 37

Assignment Key

- 1) (iv)
- 2) (v)
- 3) (v)
- 4) (ii)
- 5) (v)
- 6) (iii)
- 7) (iv)
- 8) (ii)
- 9) (ii)
- 10) (ii)
- 11) (ii)
- 12) (iv)
- 13) (v)
- 14) (v)
- 15) (iii)