

EduSahara™ Learning Center Assignment

Grade : Class IX, ICSE

Chapter : Frequency Distribution

Name : Cumulative Frequency Distribution

Construct a frequency distribution table from the following cumulative frequency distribution

1.

Class-Interval	Cumulative Frequency
12 - 17	13
18 - 23	19
24 - 29	31
30 - 35	37
36 - 41	45
42 - 47	57
48 - 53	63

(i)

Class-Interval	12 - 17	18 - 23	24 - 29	30 - 35	36 - 41	42 - 47	48 - 53
Frequency	13	12	6	6	8	12	6

(ii)

Class-Interval	12 - 17	18 - 23	24 - 29	30 - 35	36 - 41	42 - 47	48 - 53
Frequency	13	6	12	1	8	12	6

(iii)

Class-Interval	12 - 17	18 - 23	24 - 29	30 - 35	36 - 41	42 - 47	48 - 53
Frequency	13	6	12	6	8	12	6

(iv)

Class-Interval	12 - 17	18 - 23	24 - 29	30 - 35	36 - 41	42 - 47	48 - 53
Frequency	13	6	7	6	8	12	6

Construct a frequency distribution table from the following cumulative frequency distribution

2.

Class-Interval	Cumulative Frequency
22 - 29	15
29 - 36	30
36 - 43	44
43 - 50	59
50 - 57	71
57 - 64	87
64 - 71	94

(i)

Class-Interval	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 71
Frequency	15	15	14	19	12	16	7

(ii)

Class-Interval	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 71
Frequency	15	7	14	15	12	16	15

(iii)

Class-Interval	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 71
Frequency	15	15	12	15	12	16	7

(iv)

Class-Interval	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 71
Frequency	15	15	14	15	12	16	7

(v)

Class-Interval	22 - 29	29 - 36	36 - 43	43 - 50	50 - 57	57 - 64	64 - 71
Frequency	15	14	15	15	12	16	7

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)	20 - 25	26 - 31	32 - 37	38 - 43
No. of Patients	54	46	21	60

(i)

Age (in years)	Cumulative Frequency
20 - 25	60
26 - 31	106
32 - 37	127
38 - 43	181

(ii)

Age (in years)	Cumulative Frequency
20 - 25	54
26 - 31	100
32 - 37	121
38 - 43	181

(iii)

Age (in years)	Cumulative Frequency
20 - 25	54
26 - 31	75
32 - 37	121
38 - 43	181

(iv)

Age (in years)	Cumulative Frequency
20 - 25	54
26 - 31	103
32 - 37	124
38 - 43	184

(v)

Age (in years)	Cumulative Frequency
20 - 25	54
26 - 31	100
32 - 37	118
38 - 43	178

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)	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	40 - 45
No. of Patients	13	78	89	57	38	29	58

(i)

Age (in years)	Cumulative Frequency
10 - 15	13
15 - 20	91
20 - 25	180
25 - 30	237
30 - 35	275
35 - 40	304
40 - 45	362

(ii)

Age (in years)	Cumulative Frequency
10 - 15	13
15 - 20	71
20 - 25	160
25 - 30	217
30 - 35	255
35 - 40	284
40 - 45	362

(iii)

Age (in years)	Cumulative Frequency
10 - 15	13

(iv)

Age (in years)	Cumulative Frequency
10 - 15	13

15 - 20	102
20 - 25	180
25 - 30	237
30 - 35	275
35 - 40	304
40 - 45	362

15 - 20	91
20 - 25	180
25 - 30	239
30 - 35	277
35 - 40	306
40 - 45	364

(v)

Age (in years)	Cumulative Frequency
10 - 15	13
15 - 20	91
20 - 25	184
25 - 30	241
30 - 35	279
35 - 40	308
40 - 45	366

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)	300 - 320	321 - 341	342 - 362	363 - 383	384 - 404	405 - 425
Labourers	16	20	11	20	15	12

(i)

Wages (in rupees)	Cumulative Frequency
300 - 320	16
321 - 341	36
342 - 362	50
363 - 383	70
384 - 404	85
405 - 425	97

(ii)

Wages (in rupees)	Cumulative Frequency
300 - 320	16
321 - 341	36
342 - 362	47
363 - 383	71
384 - 404	86
405 - 425	98

(iii)

Wages (in rupees)	Cumulative Frequency
300 - 320	16
321 - 341	28
342 - 362	39
363 - 383	59
384 - 404	74
405 - 425	94

(iv)

Wages (in rupees)	Cumulative Frequency
300 - 320	16
321 - 341	36
342 - 362	47
363 - 383	67
384 - 404	82
405 - 425	94

(v)

Wages (in rupees)	Cumulative Frequency
300 - 320	16
321 - 341	27
342 - 362	47
363 - 383	67
384 - 404	82
405 - 425	94

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

Wages (in rupees)	200 - 240	240 - 280	280 - 320	320 - 360	360 - 400	400 - 440
Labourers	19	4	7	15	17	2

(i)

Wages (in rupees)	Cumulative Frequency
200 - 240	19
240 - 280	23
280 - 320	30
320 - 360	43
360 - 400	60
400 - 440	62

(ii)

Wages (in rupees)	Cumulative Frequency
200 - 240	19
240 - 280	23
280 - 320	28
320 - 360	43
360 - 400	60
400 - 440	62

(iii)

Wages (in rupees)	Cumulative Frequency
200 - 240	19
240 - 280	26
280 - 320	30
320 - 360	45
360 - 400	62
400 - 440	64

(iv)

Wages (in rupees)	Cumulative Frequency
200 - 240	19
240 - 280	23
280 - 320	30
320 - 360	45
360 - 400	62
400 - 440	64

(v)

Wages (in rupees)	Cumulative Frequency
200 - 240	19
240 - 280	21
280 - 320	28
320 - 360	43
360 - 400	60
400 - 440	64

Identify the cumulative frequency of the given grouped data.

7.

class interval	23 - 28	29 - 34	35 - 40	41 - 46	47 - 52	53 - 58
frequency	14	15	20	22	22	14

(i)

class interval	Cumulative Frequency
23 - 28	14
29 - 34	28
35 - 40	48
41 - 46	70
47 - 52	92
53 - 58	107

(ii)

class interval	Cumulative Frequency
23 - 28	14
29 - 34	29
35 - 40	49
41 - 46	71
47 - 52	93
53 - 58	107

(iii)

class interval	Cumulative Frequency
23 - 28	14
29 - 34	34
35 - 40	49

(iv)

class interval	Cumulative Frequency
23 - 28	14
29 - 34	29
35 - 40	49

41 - 46	71
47 - 52	93
53 - 58	107

41 - 46	69
47 - 52	91
53 - 58	105

(v)

class interval	Cumulative Frequency
23 - 28	14
29 - 34	29
35 - 40	52
41 - 46	74
47 - 52	96
53 - 58	110

Identify the cumulative frequency of the given grouped data.

8.

class interval	41 - 50	50 - 59	59 - 68	68 - 77	77 - 86	86 - 95	95 - 104	104 - 113
frequency	18	5	20	6	11	17	12	18

(i)

class interval	Cumulative Frequency
41 - 50	18
50 - 59	23
59 - 68	29
68 - 77	49
77 - 86	60
86 - 95	77
95 - 104	89
104 - 113	107

(ii)

class interval	Cumulative Frequency
41 - 50	18
50 - 59	23
59 - 68	46
68 - 77	52
77 - 86	63
86 - 95	80
95 - 104	92
104 - 113	110

(iii)

class interval	Cumulative Frequency
41 - 50	18
50 - 59	23
59 - 68	43
68 - 77	49
77 - 86	56
86 - 95	73
95 - 104	85
104 - 113	103

(iv)

class interval	Cumulative Frequency
41 - 50	18
50 - 59	23
59 - 68	43
68 - 77	49
77 - 86	60
86 - 95	77
95 - 104	89
104 - 113	107

(v)

class interval	Cumulative Frequency
41 - 50	18
50 - 59	36
59 - 68	56
68 - 77	62
77 - 86	73
86 - 95	90
95 - 104	102
104 - 113	107

Find the cumulative frequency of class 59 - 67 .

9.

Class-Interval	50 - 58	59 - 67	68 - 76	77 - 85	86 - 94
Frequency	24	25	10	10	5

- (i) 50 (ii) 46 (iii) 48 (iv) 49 (v) 52

Find the cumulative frequency of class 62 - 68 .

10.

Class-Interval	38 - 44	44 - 50	50 - 56	56 - 62	62 - 68
Frequency	5	14	9	17	21

- (i) 66 (ii) 65 (iii) 67 (iv) 69 (v) 63

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

11.

Class-Interval	Cumulative Frequency
15 - 20	13
20 - 25	27
25 - 30	37
30 - 35	52
35 - 40	61

(i)

Class-Interval	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40
Frequency	13	11	10	15	9

(ii)

Class-Interval	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40
Frequency	13	9	10	15	14

(iii)

Class-Interval	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40
Frequency	13	10	14	15	9

(iv)

Class-Interval	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40
Frequency	13	14	15	15	9

(v)

Class-Interval	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40
Frequency	13	14	10	15	9

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

12.

Class-Interval	Cumulative Frequency
25 - 35	64
35 - 45	49
45 - 55	40
55 - 65	35
65 - 75	23
75 - 85	7

(i)

Class-Interval	25 - 35	35 - 45	45 - 55	55 - 65	65 - 75	75 - 85
Frequency	15	9	5	16	16	7

(ii)

Class-Interval	25 - 35	35 - 45	45 - 55	55 - 65	65 - 75	75 - 85
Frequency	15	7	5	12	16	9

(iii)

Class-Interval	25 - 35	35 - 45	45 - 55	55 - 65	65 - 75	75 - 85
Frequency	15	9	10	12	16	7

(iv)

Class-Interval	25 - 35	35 - 45	45 - 55	55 - 65	65 - 75	75 - 85
Frequency	15	9	5	12	16	7

(v)

Class-Interval	25 - 35	35 - 45	45 - 55	55 - 65	65 - 75	75 - 85
Frequency	15	5	9	12	16	7

During the medical check-up of 53 students of a class, their weights in kgs are recorded as follows.

Identify the number of students whose weight is less than 46 kg

13.

Class-Interval	34 - 40	40 - 46	46 - 52	52 - 58	58 - 64	64 - 70
Frequency	10	10	6	11	11	5

(i) 17 (ii) 22 (iii) 20 (iv) 19 (v) 21

During the medical check-up of 38 students of a class, their weights in kgs are recorded as follows.

Identify the number of students whose weight is more than 68 kg

14.

Class-Interval	38 - 48	48 - 58	58 - 68	68 - 78
Frequency	12	7	11	8

(i) 5 (ii) 11 (iii) 8 (iv) 9 (v) 7

Assignment Key

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