EduSahara™ Assignment

Name : Class Interval Table Concepts

Chapter : Frequency Distribution

Grade : ICSE Grade IX

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1. The class size used in the below table is

Class-Interval	38 - 45	46 - 53	54 - 61	62 - 69	70 - 77	78 - 85
Frequency	11	14	13	13	19	20

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

2. The class size used in the below table is

Class-Interval	32 - 41	41 - 50	50 - 59	59 - 68
Frequency	11	18	14	22

(i) 10 (ii) 7 (iii) 9 (iv) 11 (v) 8

3. The class mark of the class with frequency x is

Class-Interval	**Frequency**
20 - 25	9
26 - 31	16
32 - 37	21
38 - 43	x
44 - 49	14

(i) $\frac{79}{2}$ (ii) 41 (iii) $\frac{83}{2}$ (iv) $\frac{81}{2}$ (v) $\frac{161}{4}$

4. The class mark of the class with frequency x is

Class-Interval	**Frequency**
11 - 16	27
16 - 21	x
21 - 26	26
26 - 31	24
31 - 36	21

(i) $\frac{73}{4}$ (ii) $\frac{39}{2}$ (iii) 19 (iv) $\frac{35}{2}$ (v) $\frac{37}{2}$

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

Class-Interval	**Frequency**
3 - 13	14
14 - 24	9
25 - 35	x
36 - 46	22
47 - 57	25

(i) 29 (ii) 32 (iii) 30 (iv) 31 (v) 27

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

Class-Interval	Frequency
3 - 13	7
13 - 23	29
23 - 33	x
33 - 43	3
43 - 53	5

(i) 28 (ii) 25 (iii) 31 (iv) 27 (v) 29

7. The class boundaries of the class with frequency x is

Class-Interval	Frequency
11 - 18	30
19 - 26	16
27 - 34	10
35 - 42	x
43 - 50	6

(i) 34.5-42.5 (ii) 35-42 (iii) 34-43 (iv) 34-42.5 (v) 34.5-43

8. The class boundaries of the class with frequency x is

Class-Interval	Frequency
22 - 27	20
27 - 32	1
32 - 37	15
37 - 42	x
42 - 47	6

(i) 37-42.5 (ii) 36.5-42 (iii) 36.5-42.5 (iv) 37-42 (v) 37.5-41.5

9. The true lower limit and true upper limit of the class with frequency x is

Class-Interval	Frequency
26 - 33	5
34 - 41	24
42 - 49	1
50 - 57	x
58 - 65	11

(i) 49.5-57.5 (ii) 49-58 (iii) 49.5-58 (iv) 50-57 (v) 49-57.5

10. The true lower limit and true upper limit of the class with frequency x is

Class-Interval	Frequency
44 - 49	x
49 - 54	29
54 - 59	14
59 - 64	19
64 - 69	25

(i) 44.5-48.5 (ii) 44-49 (iii) 43.5-49.5 (iv) 44-49.5 (v) 43.5-49

11. The lower limit of the class with frequency x is

Class-Interval	Frequency
15 - 23	6
24 - 32	1
33 - 41	27
42 - 50	12
51 - 59	x

(i) 48 (ii) 52 (iii) 50 (iv) 51 (v) 54

12. The upper limit of the class with frequency x is

Class-Interval	Frequency
14 - 19	20
19 - 24	25
24 - 29	3
29 - 34	16
34 - 39	x

(i) 40 (ii) 38 (iii) 41 (iv) 39 (v) 37

13. If some random sample data is arranged in a frequency distribution table in inclusive form with 1 - 5 as the first class, then the observation 32 falls in which class?

(i) 31.5-34.5 (ii) 31-35 (iii) 30.5-35.5 (iv) 32-36 (v) 30-34

14. If some random sample data is arranged in a frequency distribution table in exclusive form with 3 - 10 as the first class, then the observation 31 falls in which class?

(i) 30-37 (ii) 30.5-38.5 (iii) 31-38 (iv) 32-39 (v) 31.5-37.5

15. Find the sum of frequencies for the given table

Value	10	11	23	29	51	61	80	83	84
Frequency	1	1	1	1	1	2	1	1	1

(i) 13 (ii) 11 (iii) 8 (iv) 10 (v) 9

16. Given class interval table, find the sum of frequencies.

Class-Interval	17 - 23	24 - 30	31 - 37	38 - 44	45 - 51	52 - 58
Frequency	5	29	7	16	14	19

(i) 91 (ii) 93 (iii) 88 (iv) 89 (v) 90

17. Given class interval table, find the sum of frequencies.

Class-Interval	20 - 25	25 - 30	30 - 35	35 - 40
Frequency	9	29	13	24

(i) 73 (ii) 74 (iii) 75 (iv) 76 (v) 77

18. Given table in inclusive form, convert it into exclusive form.

Class-Interval	15 - 20	21 - 26	27 - 32	33 - 38	39 - 44
Frequency	46	28	40	47	35

(i)

Class-Interval	14.5 - 20.5	20.5 - 26.5	26.5 - 32.5	32.5 - 38.5	38.5 - 44.5
Frequency	46	28	40	47	35

(ii)

Class-Interval	14.5 - 20	20.5 - 26	26.5 - 32	32.5 - 38	38.5 - 44
Frequency	46	28	40	47	35

(iii)

Class-Interval	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40
Frequency	32	32	24	21	39

(iv)

Class-Interval	14.5 - 19.5	20.5 - 25.5	26.5 - 31.5	32.5 - 37.5	38.5 - 43.5
Frequency	46	28	40	47	35

(v)

Class-Interval	15.5 - 20.5	21.5 - 26.5	27.5 - 32.5	33.5 - 38.5	39.5 - 44.5
Frequency	46	28	40	47	35

19. If the sum of the following frequency distribution is 27 , find the value of 'x'.

Value	**Frequency**
4	3
5	1
6	7
7	x
8	3
9	2
10	1
11	1
12	5
13	1

(i) 3 (ii) 2 (iii) 4 (iv) 1 (v) 6

20. If the sum of the following frequency distribution is 32 , find the value of 'x'.

Class-Interval	**Frequency**
20 - 28	9
29 - 37	3
38 - 46	2
47 - 55	1
56 - 64	3
65 - 73	9
74 - 82	x
83 - 91	4

(i) -1 (ii) 1 (iii) 2 (iv) 0 (v) 4

21. Given class interval 45 - 48 in exclusive form, its lower limit is

(i) 43 (ii) 45 (iii) 48 (iv) 44 (v) 46

22. Given class interval 16 - 26 in exclusive form, its upper limit is

(i) 28 (ii) 26 (iii) 25 (iv) 27 (v) 23

23. Given class interval 36 - 39 in exclusive form, its class size is

(i) 1 (ii) 3 (iii) 2 (iv) 4 (v) 5

24. Given class interval 39 - 49 in exclusive form, its class mark is

(i) 44 (ii) 41 (iii) 45 (iv) 46 (v) 43

25. Given class interval 14 - 19 in exclusive form, its mid value is

(i) 17 (ii) $\frac{35}{2}$ (iii) $\frac{31}{2}$ (iv) $\frac{65}{4}$ (v) $\frac{33}{2}$

26. If the upper and lower limit of class interval are 44 and 36 respectively, then the class interval is

(i) 36-44 (ii) 35.5-44 (iii) 36.5-43.5 (iv) 35.5-44.5 (v) 36-44.5

27. If the lower and upper limit of class interval are 25 and 34 respectively, then the class interval is

(i) 25.5-33.5 (ii) 25-34.5 (iii) 24.5-34 (iv) 24.5-34.5 (v) 25-34

28. The class boundaries of 41 - 43 which is in exclusive form are

(i) 41.5-42.5 (ii) 41-43.5 (iii) 41-43 (iv) 40.5-43 (v) 40.5-43.5

29. The class boundaries of 33 - 35 which is in inclusive form are

(i) 32.5-36 (ii) 32-35.5 (iii) 32-36 (iv) 33-35 (v) 32.5-35.5

30. Convert the exclusive form of the class interval 14.5 - 17.5 to inclusive form

(i) 14.5-17 (ii) 14.5-17.5 (iii) 15.5-16.5 (iv) 15-17.5 (v) 15-17

31. Convert the inclusive form of the class interval 44 - 49 to exclusive form

(i) 43.5-49.5 (ii) 43-50 (iii) 43.5-50 (iv) 44-49 (v) 43-49.5

32. Convert the discontinuous form of the class interval 17 - 20 to continuous form

(i) 17-20 (ii) 16-20.5 (iii) 16.5-20.5 (iv) 16-21 (v) 16.5-21

33. Convert the continuous form of the class interval 17.5 - 24.5 to discontinuous form

(i) 18.5-23.5 (ii) 18-24 (iii) 18-24.5 (iv) 17.5-24.5 (v) 17.5-24

34. Which of the following are true?

a) The true lower limit of the inclusive form class interval 20 - 30 is 20.
b) The difference between the true upper limit and true lower limit is called the class mark.
c) Each numerical figure in a data set is called an observation.
d) The true lower limit of the exclusive form class interval 20 - 30 is 20.
e) The number of times a particular observation occurs is called its frequency.

(i) {a,b,e} (ii) {a,c} (iii) {c,d,e} (iv) {a,c,d} (v) {b,d}

35. Which of the following class intervals are in inclusive form?

a) 20 - 27 , 28 - 35 , 36 - 43,...
b) 41 - 48 , 48 - 55 , 55 - 62...
c) 20 - 27 , 27 - 34 , 34 - 41,...
d) 19.5 - 27.5 , 27.5 - 35.5 , 35.5 - 43.5...
e) 44 - 51 , 52 - 59 , 60 - 67,...

(i) {c,e,a} (ii) {b,a} (iii) {c,e} (iv) {d,b,a} (v) {a,e}

36. In inclusive form representation, the observation 47 falls in which class?

(i) 27-37 (ii) 37-47 (iii) 48-57 (iv) 32-42 (v) 36-46

37. In exclusive form representation, the observation 44 falls in which class?

(i) 44-54 (ii) 34-44 (iii) 49-59 (iv) 39-44 (v) 54-64

38. If the sample data with range 60 has to be divided into 10 class intervals, then the length of the class is

(i) 4 (ii) 9 (iii) 7 (iv) 6 (v) 5

39. If the length of the class is 5, then the number of class intervals needed to represent data with range 30 is

(i) 6 (ii) 10 (iii) 8 (iv) 7 (v) 4

40. The number of classes of class size 5 required to represent the given random sample in exclusive form
3 7 13 16 20 25 27 28 30 32 32 33 35 35 40 40 43 46 47 47 50

(i) 7 (ii) 10 (iii) 11 (iv) 12 (v) 9

41. Which of the following are continuous variables?

a) Number of members in a family.
b) Number of workers in a factory.
c) Wages of workers in a factory.
d) Heights of children in a class.
e) Weights of persons in a group.

(i) {a,b,e} (ii) {c,d,e} (iii) {a,c} (iv) {a,c,d} (v) {b,d}

42. Which of the following are discontinuous variables?

a) Number of members in a family.
b) Weights of persons in a group.
c) Heights of children in a class.
d) Wages of workers in a factory.
e) Number of workers in a factory.

(i) {d,b,a} (ii) {b,a} (iii) {c,e} (iv) {c,e,a} (v) {a,e}

43. Which of the following class intervals are in exclusive form?

a) 16 - 25 , 26 - 35 , 36 - 45,...
b) 46 - 55 , 56 - 65 , 66 - 75,...
c) 16 - 25 , 25 - 34 , 34 - 43,...
d) 15.5 - 25.5 , 25.5 - 35.5 , 35.5 - 45.5...
e) 43 - 52 , 52 - 61 , 61 - 70...

(i) {a,c} (ii) {b,d} (iii) {a,c,d} (iv) {a,b,e} (v) {c,d,e}

44. The class marks of a frequency distribution are 13.5 , 19.5 , 25.5 , 31.5 .
Find the class size and class intervals in inclusive form

(i) 6;10-16,16-22,22-28,28-34 (ii) 6;10-15,16-21,22-27,28-33 (iii) 6;12-17,18-23,24-29,30-35

(iv) 5;11-16,16-21,21-26,26-31 (v) 6;11-16,17-22,23-28,29-34

45. The class marks of a frequency distribution are 22 , 32 , 42 , 52 .
Find the class size and class intervals in exclusive form

(i) 10;17-27,27-37,37-47,47-57 (ii) 10;18-28,28-38,38-48,48-58 (iii) 11;17-27,28-38,39-49,50-60

(iv) 12;16-27,28-39,40-51,52-63 (v) 10;16-26,26-36,36-46,46-56

46. Which of the following are continuous variables?

a) Temperature at a place over a month
b) Rainfall at a place over a month
c) Number of players in a team
d) Number of members in a family
e) Marks obtained by student in a particular subject

(i) {a,b} (ii) {d,b,a} (iii) {c,a} (iv) {e,c,a} (v) {d,b}

47. Which of the following are discrete variables?

a) Heights of children in a class
b) Weights of persons in a group
c) Number of workers in a factory
d) Wages of workers in a factory
e) Number of members in a family

(i) {d,a,c} (ii) {b,e} (iii) {a,c} (iv) {c,e} (v) {b,e,c}

Assignment Key

1) (v)	2) (iii)	3) (iv)	4) (v)	5) (iii)	6) (i)
7) (i)	8) (iv)	9) (i)	10) (ii)	11) (iv)	12) (iv)
13) (ii)	14) (iii)	15) (iv)	16) (v)	17) (iii)	18) (i)
19) (i)	20) (ii)	21) (ii)	22) (ii)	23) (ii)	24) (i)
25) (v)	26) (i)	27) (v)	28) (iii)	29) (v)	30) (v)
31) (i)	32) (iii)	33) (ii)	34) (iii)	35) (v)	36) (ii)
37) (i)	38) (iv)	39) (iv)	40) (ii)	41) (ii)	42) (v)
43) (v)	44) (v)	45) (i)	46) (i)	47) (iv)	