EduSahara™ Assignment

Name : Class Interval Table Concepts

Chapter : Frequency Distribution

Grade : ICSE Grade IX

1. The class size used in the below table is

Class-Interval	23 - 30	31 - 38	39 - 46	47 - 54	55 - 62
Frequency	3	27	17	29	23

(i) 10 (ii) 7 (iii) 9 (iv) 8 (v) 6

2. The class size used in the below table is

Class-Interval	18 - 27	27 - 36	36 - 45	45 - 54	54 - 63	63 - 72
Frequency	30	29	18	15	16	24

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

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

Class-Interval	**Frequency**
1 - 6	8
7 - 12	x
13 - 18	22
19 - 24	13
25 - 30	1

(i) $\frac{19}{2}$ (ii) 10 (iii) $\frac{37}{4}$ (iv) $\frac{21}{2}$ (v) $\frac{17}{2}$

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

Class-Interval	**Frequency**
14 - 19	26
19 - 24	x
24 - 29	8
29 - 34	19
34 - 39	18

(i) $\frac{45}{2}$ (ii) $\frac{85}{4}$ (iii) $\frac{41}{2}$ (iv) $\frac{43}{2}$ (v) 22

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

Class-Interval	**Frequency**
13 - 23	7
24 - 34	x
35 - 45	1
46 - 56	6
57 - 67	3

(i) 30 (ii) 29 (iii) 32 (iv) 27 (v) 28

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

Class-Interval	Frequency
6 - 11	2
11 - 16	12
16 - 21	22
21 - 26	x
26 - 31	3

(i) $\frac{93}{4}$ (ii) $\frac{49}{2}$ (iii) $\frac{45}{2}$ (iv) 24 (v) $\frac{47}{2}$

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

Class-Interval	Frequency
24 - 32	14
33 - 41	3
42 - 50	x
51 - 59	19
60 - 68	27

(i) 41-51 (ii) 41.5-50.5 (iii) 41-50.5 (iv) 42-50 (v) 41.5-51

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

Class-Interval	Frequency
19 - 24	17
24 - 29	11
29 - 34	18
34 - 39	12
39 - 44	x

(i) 39-44 (ii) 38.5-44 (iii) 38.5-44.5 (iv) 39-44.5 (v) 39.5-43.5

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

Class-Interval	Frequency
34 - 42	14
43 - 51	3
52 - 60	26
61 - 69	x
70 - 78	15

(i) 60-69.5 (ii) 60.5-69.5 (iii) 60.5-70 (iv) 60-70 (v) 61-69

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

Class-Interval	Frequency
45 - 50	20
50 - 55	8
55 - 60	9
60 - 65	3
65 - 70	x

(i) 65.5-69.5 (ii) 65-70 (iii) 65-70.5 (iv) 64.5-70.5 (v) 64.5-70

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

Class-Interval	Frequency
36 - 44	19
45 - 53	15
54 - 62	16
63 - 71	x
72 - 80	9

(i) 61 (ii) 62 (iii) 63 (iv) 65 (v) 64

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

Class-Interval	Frequency
16 - 25	4
25 - 34	8
34 - 43	24
43 - 52	x
52 - 61	2

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

13. If some random sample data is arranged in a frequency distribution table in inclusive form with 1 - 7 as the first class, then the observation 29 falls in which class?

(i) 29.5-34.5 (ii) 29-35 (iii) 28-34 (iv) 28.5-35.5 (v) 30-36

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 24 falls in which class?

(i) 24-31 (ii) 23-30 (iii) 24.5-30.5 (iv) 25-32 (v) 23.5-31.5

15. Find the sum of frequencies for the given table

Value	16	22	30	45	47	67	70	82	83	84
Frequency	1	1	1	1	1	1	1	1	1	1

(i) 9 (ii) 11 (iii) 10 (iv) 12 (v) 8

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

Class-Interval	29 - 38	39 - 48	49 - 58	59 - 68	69 - 78	79 - 88	89 - 98	99 - 108
Frequency	3	11	28	11	8	20	21	1

(i) 104 (ii) 101 (iii) 106 (iv) 103 (v) 102

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

Class-Interval	48 - 55	55 - 62	62 - 69	69 - 76	76 - 83	83 - 90	90 - 97	97 - 104
Frequency	28	8	23	27	26	2	3	15

(i) 130 (ii) 134 (iii) 133 (iv) 131 (v) 132

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

Class-Interval	19 - 26	27 - 34	35 - 42	43 - 50	51 - 58	59 - 66
Frequency	46	44	12	12	41	31

(i)

Class-Interval	18.5 - 25.5	26.5 - 33.5	34.5 - 41.5	42.5 - 49.5	50.5 - 57.5	58.5 - 65.5
Frequency	46	44	12	12	41	31

(ii)

Class-Interval	18.5 - 26.5	26.5 - 34.5	34.5 - 42.5	42.5 - 50.5	50.5 - 58.5	58.5 - 66.5
Frequency	46	44	12	12	41	31

(iii)

Class-Interval	19 - 26	26 - 33	33 - 40	40 - 47	47 - 54	54 - 61
Frequency	17	17	17	41	23	32

(iv)

Class-Interval	18.5 - 26	26.5 - 34	34.5 - 42	42.5 - 50	50.5 - 58	58.5 - 66
Frequency	46	44	12	12	41	31

(v)

Class-Interval	19.5 - 26.5	27.5 - 34.5	35.5 - 42.5	43.5 - 50.5	51.5 - 58.5	59.5 - 66.5
Frequency	46	44	12	12	41	31

19. If the sum of the following frequency distribution is 29 , find the value of 'x'.

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

(i) 4 (ii) 3 (iii) 6 (iv) 2 (v) 0

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

Class-Interval	**Frequency**
10 - 18	5
19 - 27	8
28 - 36	6
37 - 45	2
46 - 54	8
55 - 63	x

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

21. Given class interval 39 - 44 in exclusive form, its lower limit is

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

22. Given class interval 34 - 38 in exclusive form, its upper limit is

(i) 38 (ii) 40 (iii) 37 (iv) 35 (v) 39

23. Given class interval 47 - 50 in exclusive form, its class size is

(i) 5 (ii) 4 (iii) 0 (iv) 3 (v) 2

24. Given class interval 39 - 41 in exclusive form, its class mark is

(i) 38 (ii) 41 (iii) 40 (iv) 43 (v) 39

25. Given class interval 21 - 29 in exclusive form, its mid value is

(i) 25 (ii) 23 (iii) 24 (iv) 26 (v) 28

26. If the upper and lower limit of class interval are 59 and 50 respectively, then the class interval is

(i) 50-59 (ii) 49.5-59.5 (iii) 50-59.5 (iv) 50.5-58.5 (v) 49.5-59

27. If the lower and upper limit of class interval are 18 and 24 respectively, then the class interval is

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

28. The class boundaries of 41 - 47 which is in exclusive form are

(i) 40.5-47 (ii) 40.5-47.5 (iii) 41-47.5 (iv) 41-47 (v) 41.5-46.5

29. The class boundaries of 23 - 27 which is in inclusive form are

(i) 22-28 (ii) 22-27.5 (iii) 22.5-27.5 (iv) 22.5-28 (v) 23-27

30. Convert the exclusive form of the class interval 27.5 - 33.5 to inclusive form

(i) 28-33.5 (ii) 27.5-33.5 (iii) 27.5-33 (iv) 28-33 (v) 28.5-32.5

31. Convert the inclusive form of the class interval 18 - 28 to exclusive form

(i) 17-29 (ii) 17.5-28.5 (iii) 17.5-29 (iv) 18-28 (v) 17-28.5

32. Convert the discontinuous form of the class interval 30 - 34 to continuous form

(i) 29.5-34.5 (ii) 29-35 (iii) 29-34.5 (iv) 29.5-35 (v) 30-34

33. Convert the continuous form of the class interval 32.5 - 35.5 to discontinuous form

(i) 33-35.5 (ii) 33.5-34.5 (iii) 32.5-35.5 (iv) 33-35 (v) 32.5-35

34. Which of the following are true?

a) The true lower limit of the inclusive form class interval 50 - 60 is 50.
b) Each numerical figure in a data set is called an observation.
c) The difference between the true upper limit and true lower limit is called the class mark.
d) The true lower limit of the exclusive form class interval 50 - 60 is 50.
e) The number of times a particular observation occurs is called its frequency.

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

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

a) 17 - 25 , 26 - 34 , 35 - 43,...
b) 41 - 49 , 49 - 57 , 57 - 65...
c) 17 - 25 , 25 - 33 , 33 - 41,...
d) 16.5 - 25.5 , 25.5 - 34.5 , 34.5 - 43.5...
e) 44 - 52 , 53 - 61 , 62 - 70,...

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

36. In inclusive form representation, the observation 54 falls in which class?

(i) 44-54 (ii) 43-53 (iii) 39-49 (iv) 34-44 (v) 55-64

37. In exclusive form representation, the observation 18 falls in which class?

(i) 23-33 (ii) 13-18 (iii) 28-38 (iv) 8-18 (v) 18-28

38. If the sample data with range 50 has to be divided into 5 class intervals, then the length of the class is

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

39. If the length of the class is 9, then the number of class intervals needed to represent data with range 70 is

(i) 5 (ii) 10 (iii) 9 (iv) 8 (v) 7

40. The number of classes of class size 4 required to represent the given random sample in exclusive form
1 1 3 12 14 17 20 21 24 26 30 30 31 32 33 33 34 37 44 45 46 46 49

(i) 14 (ii) 12 (iii) 15 (iv) 10 (v) 13

41. Which of the following are continuous variables?

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

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

42. Which of the following are discontinuous variables?

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

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

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

a) 28 - 36 , 37 - 45 , 46 - 54,...
b) 52 - 60 , 60 - 68 , 68 - 76...
c) 28 - 36 , 36 - 44 , 44 - 52,...
d) 55 - 63 , 64 - 72 , 73 - 81,...
e) 27.5 - 36.5 , 36.5 - 45.5 , 45.5 - 54.5...

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

44. The class marks of a frequency distribution are 14 , 21 , 28 , 35 .
Find the class size and class intervals in inclusive form

(i) 7;10-16,17-23,24-30,31-37 (ii) 7;12-18,19-25,26-32,33-39 (iii) 7;10-17,17-24,24-31,31-38

(iv) 6;11-17,17-23,23-29,29-35 (v) 7;11-17,18-24,25-31,32-38

45. The class marks of a frequency distribution are 20 , 30 , 40 , 50 .
Find the class size and class intervals in exclusive form

(i) 11;15-25,26-36,37-47,48-58 (ii) 10;15-25,25-35,35-45,45-55 (iii) 10;16-26,26-36,36-46,46-56

(iv) 10;14-24,24-34,34-44,44-54 (v) 12;14-25,26-37,38-49,50-61

46. Which of the following are continuous variables?

a) Marks obtained by student in a particular subject
b) Heights of children in a class
c) Weights of persons in a group
d) Number of workers in a factory
e) Number of members in a family

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

47. Which of the following are discrete variables?

a) Marks obtained by student in a particular subject
b) Heights of children in a class
c) Number of players in a team
d) Weights of persons in a group
e) Temperature at a place over a month

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

Assignment Key

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