EduSahara™ Assignment

Name : Class Interval Table Concepts

Chapter : Statistics

Grade : CBSE Grade IX

1. Given class interval 18 - 21 in exclusive form, its lower limit is

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

2. Given class interval 24 - 32 in exclusive form, its upper limit is

   (i) 32 (ii) 33 (iii) 31 (iv) 35 (v) 29

3. Given class interval 28 - 37 in exclusive form, its class size is

   (i) 12 (ii) 6 (iii) 8 (iv) 10 (v) 9

4. Given class interval 48 - 53 in exclusive form, its class mark is

   (i) $\frac{101}{2}$ (ii) $\frac{99}{2}$ (iii) $\frac{201}{4}$ (iv) 51 (v) $\frac{103}{2}$

5. Given class interval 12 - 14 in exclusive form, its mid value is

   (i) 12 (ii) 14 (iii) 16 (iv) 13 (v) 10

6. If the upper and lower limit of class interval are 43 and 37 respectively, then the class interval is

   (i) 36.5-43.5 (ii) 37-43.5 (iii) 36.5-43 (iv) 37.5-42.5 (v) 37-43

7. If the lower and upper limit of class interval are 23 and 27 respectively, then the class interval is

   (i) 23-27.5 (ii) 22.5-27 (iii) 23-27 (iv) 23.5-26.5 (v) 22.5-27.5

8. The class boundaries of 46 - 54 which is in exclusive form are

   (i) 45.5-54 (ii) 46-54 (iii) 46.5-53.5 (iv) 46-54.5 (v) 45.5-54.5

9. The class boundaries of 12 - 20 which is in inclusive form are

   (i) 11.5-20.5 (ii) 11.5-21 (iii) 11-20.5 (iv) 11-21 (v) 12-20

10. Convert the exclusive form of the class interval 13.5 - 24.5 to inclusive form

    (i) 14-24.5 (ii) 14.5-23.5 (iii) 14-24 (iv) 13.5-24.5 (v) 13.5-24

11. Convert the inclusive form of the class interval 13 - 22 to exclusive form

    (i) 12.5-22.5 (ii) 12-22.5 (iii) 12.5-23 (iv) 12-23 (v) 13-22

12. Convert the discontinuous form of the class interval 16 - 26 to continuous form

    (i) 15.5-26.5 (ii) 15-26.5 (iii) 15.5-27 (iv) 16-26 (v) 15-27

13. Convert the continuous form of the class interval 40.5 - 51.5 to discontinuous form

    (i) 41-51 (ii) 40.5-51.5 (iii) 41.5-50.5 (iv) 40.5-51 (v) 41-51.5

14. The class size used in the below table is

Class-Interval	12 - 21	22 - 31	32 - 41	42 - 51	52 - 61	62 - 71	72 - 81
Frequency	2	19	10	5	16	8	15

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

15. The class size used in the below table is

Class-Interval	47 - 56	56 - 65	65 - 74	74 - 83	83 - 92	92 - 101
Frequency	19	27	7	6	25	25

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

16. Which of the following are true?

a) The number of times a particular observation occurs is called its frequency.
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 inclusive form class interval 50 - 60 is 50.
e) The true lower limit of the exclusive form class interval 50 - 60 is 50.

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

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

a) 30 - 36 , 37 - 43 , 44 - 50,...
b) 51 - 57 , 58 - 64 , 65 - 71,...
c) 29.5 - 36.5 , 36.5 - 43.5 , 43.5 - 50.5...
d) 48 - 54 , 54 - 60 , 60 - 66...
e) 30 - 36 , 36 - 42 , 42 - 48,...

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

18. In inclusive form representation, the observation 44 falls in which class?

(i) 45-54 (ii) 29-39 (iii) 34-44 (iv) 24-34 (v) 33-43

19. In exclusive form representation, the observation 34 falls in which class?

(i) 39-49 (ii) 29-34 (iii) 44-54 (iv) 34-44 (v) 24-34

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

Class-Interval	**Frequency**
41 - 48	29
49 - 56	25
57 - 64	x
65 - 72	13
73 - 80	15

(i) 56.5-65 (ii) 56.5-64.5 (iii) 57-64 (iv) 56-65 (v) 56-64.5

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

Class-Interval	**Frequency**
38 - 43	23
43 - 48	24
48 - 53	x
53 - 58	28
58 - 63	5

(i) 48-53 (ii) 47.5-53.5 (iii) 48.5-52.5 (iv) 48-53.5 (v) 47.5-53

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

Class-Interval	Frequency
40 - 47	9
48 - 55	10
56 - 63	14
64 - 71	9
72 - 79	x

(i) 72-79 (ii) 71-79.5 (iii) 71-80 (iv) 71.5-80 (v) 71.5-79.5

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

Class-Interval	Frequency
31 - 37	2
37 - 43	x
43 - 49	19
49 - 55	6
55 - 61	15

(i) 36.5-43.5 (ii) 37-43.5 (iii) 37-43 (iv) 36.5-43 (v) 37.5-42.5

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

Class-Interval	Frequency
22 - 31	26
32 - 41	x
42 - 51	17
52 - 61	10
62 - 71	5

(i) 31 (ii) 33 (iii) 34 (iv) 29 (v) 32

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

Class-Interval	Frequency
37 - 45	17
45 - 53	4
53 - 61	14
61 - 69	x
69 - 77	5

(i) 71 (ii) 69 (iii) 68 (iv) 70 (v) 67

26. If the sample data with range 30 has to be divided into 5 class intervals, then the length of the class is

(i) 9 (ii) 3 (iii) 5 (iv) 7 (v) 6

27. If the length of the class is 7, then the number of class intervals needed to represent data with range 50 is

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

28. The number of classes of class size 9 required to represent the given random sample in exclusive form
3 4 6 9 11 15 20 20 21 27 29 29 32 33 36 37 37 38 38 40 44 45 46 46 47 50

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

29. 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 18 falls in which class?

(i) 15.5-20.5 (ii) 15-19 (iii) 16-20 (iv) 17-21 (v) 16.5-19.5

30. If some random sample data is arranged in a frequency distribution table in exclusive form with 2 - 8 as the first class, then the observation 22 falls in which class?

(i) 20.5-25.5 (ii) 19.5-26.5 (iii) 19-25 (iv) 21-27 (v) 20-26

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

Class-Interval	37 - 46	46 - 55	55 - 64	64 - 73	73 - 82	82 - 91
Frequency	12	8	2	30	15	28

(i) 96 (ii) 94 (iii) 93 (iv) 98 (v) 95

32. Which of the following are continuous variables?

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

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

33. Which of the following are discontinuous variables?

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

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

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

Class-Interval	12 - 20	21 - 29	30 - 38	39 - 47	48 - 56	57 - 65
Frequency	35	32	12	24	32	27

(i)

Class-Interval	11.5 - 19.5	20.5 - 28.5	29.5 - 37.5	38.5 - 46.5	47.5 - 55.5	56.5 - 64.5
Frequency	35	32	12	24	32	27

(ii)

Class-Interval	12.5 - 20.5	21.5 - 29.5	30.5 - 38.5	39.5 - 47.5	48.5 - 56.5	57.5 - 65.5
Frequency	35	32	12	24	32	27

(iii)

Class-Interval	12 - 20	20 - 28	28 - 36	36 - 44	44 - 52	52 - 60
Frequency	40	29	14	26	34	49

(iv)

Class-Interval	11.5 - 20	20.5 - 29	29.5 - 38	38.5 - 47	47.5 - 56	56.5 - 65
Frequency	35	32	12	24	32	27

(v)

Class-Interval	11.5 - 20.5	20.5 - 29.5	29.5 - 38.5	38.5 - 47.5	47.5 - 56.5	56.5 - 65.5
Frequency	35	32	12	24	32	27

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

a) 13.5 - 23.5 , 23.5 - 33.5 , 33.5 - 43.5...
b) 14 - 23 , 23 - 32 , 32 - 41,...
c) 44 - 53 , 54 - 63 , 64 - 73,...
d) 14 - 23 , 24 - 33 , 34 - 43,...
e) 41 - 50 , 50 - 59 , 59 - 68...

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

36. If the mean of the following frequency distribution is $6\frac{6}{25}$,

find the value of 'x'.

Value	Frequency
1	2
2	3
3	2
4	x
5	2
6	4
7	2
8	1
11	6
12	1

(i) 2 (ii) 5 (iii) 0 (iv) 1 (v) 3

37. If the sum of the following frequency distribution is 29 ,

find the value of 'x'.

Class-Interval	Frequency
20 - 25	4
26 - 31	3
32 - 37	4
38 - 43	5
44 - 49	x
50 - 55	6
56 - 61	6

(i) 1 (ii) 2 (iii) -1 (iv) 0 (v) 3

38. To represent equal numerical values, same diagrams are used in

(i) pictographs (ii) sectors (iii) pie-diagrams (iv) bar-diagrams

39. Which of the following are continuous variables?

a) Number of members in a family
b) Heights of children in a class
c) Number of workers in a factory
d) Number of players in a team
e) Wages of workers in a factory

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

40. Which of the following are discrete variables?

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

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

41. Find the sum of frequencies for the given table

Value	12	14	20	21	36	37	56	61	73
Frequency	1	1	1	1	2	1	1	1	1

(i) 13 (ii) 10 (iii) 7 (iv) 11 (v) 9

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

Class-Interval	50 - 60	61 - 71	72 - 82	83 - 93	94 - 104	105 - 115	116 - 126	127 - 137
Frequency	21	7	29	21	15	27	26	27

(i) 173 (ii) 175 (iii) 170 (iv) 172 (v) 174

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

(i) 7;12-18,19-25,26-32,33-39 (ii) 7;10-17,17-24,24-31,31-38 (iii) 7;11-17,18-24,25-31,32-38

(iv) 7;10-16,17-23,24-30,31-37 (v) 6;11-17,17-23,23-29,29-35

44. The class marks of a frequency distribution are 31.5 , 38.5 , 45.5 , 52.5 .
Find the class size and class intervals in exclusive form

(i) 9;27-35,36-44,45-53,54-62 (ii) 7;29-36,36-43,43-50,50-57 (iii) 7;28-35,35-42,42-49,49-56

(iv) 8;28-35,36-43,44-51,52-59 (v) 7;27-34,34-41,41-48,48-55

Assignment Key

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