EduSahara™ Assignment

Name : Class Interval Table Concepts

Chapter : Statistics

Grade : ICSE Grade VIII

1. Given class interval 47 - 50 in exclusive form, its lower limit is

   (i) 44 (ii) 49 (iii) 48 (iv) 47 (v) 46

2. Given class interval 35 - 37 in exclusive form, its upper limit is

   (i) 38 (ii) 34 (iii) 37 (iv) 40 (v) 36

3. Given class interval 41 - 44 in exclusive form, its class size is

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

4. Given class interval 17 - 22 in exclusive form, its class mark is

   (i) $\frac{77}{4}$ (ii) $\frac{39}{2}$ (iii) $\frac{41}{2}$ (iv) 20 (v) $\frac{37}{2}$

5. Given class interval 17 - 21 in exclusive form, its mid value is

   (i) 19 (ii) 18 (iii) 17 (iv) 21 (v) 20

6. If the upper and lower limit of class interval are 55 and 48 respectively, then the class interval is

   (i) 48.5-54.5 (ii) 47.5-55 (iii) 48-55.5 (iv) 48-55 (v) 47.5-55.5

7. If the lower and upper limit of class interval are 46 and 51 respectively, then the class interval is

   (i) 46-51 (ii) 45.5-51 (iii) 46-51.5 (iv) 46.5-50.5 (v) 45.5-51.5

8. The class boundaries of 36 - 45 which is in exclusive form are

   (i) 35.5-45.5 (ii) 36-45 (iii) 35.5-45 (iv) 36.5-44.5 (v) 36-45.5

9. The class boundaries of 41 - 47 which is in inclusive form are

   (i) 40-47.5 (ii) 40.5-48 (iii) 40.5-47.5 (iv) 41-47 (v) 40-48

10. Convert the exclusive form of the class interval 12.5 - 15.5 to inclusive form

    (i) 13-15 (ii) 12.5-15 (iii) 13.5-14.5 (iv) 12.5-15.5 (v) 13-15.5

11. Convert the inclusive form of the class interval 32 - 41 to exclusive form

    (i) 31-42 (ii) 31-41.5 (iii) 31.5-42 (iv) 31.5-41.5 (v) 32-41

12. Convert the discontinuous form of the class interval 26 - 28 to continuous form

    (i) 25.5-29 (ii) 25-28.5 (iii) 25-29 (iv) 26-28 (v) 25.5-28.5

13. Convert the continuous form of the class interval 43.5 - 48.5 to discontinuous form

    (i) 43.5-48 (ii) 43.5-48.5 (iii) 44.5-47.5 (iv) 44-48.5 (v) 44-48

14. The class size used in the below table is

Class-Interval	16 - 26	27 - 37	38 - 48	49 - 59	60 - 70	71 - 81	82 - 92
Frequency	28	23	14	14	7	21	25

(i) 11 (ii) 10 (iii) 9 (iv) 14 (v) 12

15. The class size used in the below table is

Class-Interval	49 - 56	56 - 63	63 - 70	70 - 77	77 - 84	84 - 91	91 - 98
Frequency	26	25	17	1	7	16	23

(i) 4 (ii) 6 (iii) 7 (iv) 8 (v) 9

16. Which of the following are true?

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

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

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

a) 17 - 24 , 25 - 32 , 33 - 40,...
b) 17 - 24 , 24 - 31 , 31 - 38,...
c) 38 - 45 , 45 - 52 , 52 - 59...
d) 16.5 - 24.5 , 24.5 - 32.5 , 32.5 - 40.5...
e) 41 - 48 , 49 - 56 , 57 - 64,...

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

18. In inclusive form representation, the observation 27 falls in which class?

(i) 7-17 (ii) 28-37 (iii) 12-22 (iv) 16-26 (v) 17-27

19. In exclusive form representation, the observation 24 falls in which class?

(i) 19-24 (ii) 34-44 (iii) 14-24 (iv) 24-34 (v) 29-39

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

Class-Interval	**Frequency**
7 - 12	5
13 - 18	25
19 - 24	x
25 - 30	10
31 - 36	7

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

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

Class-Interval	Frequency
1 - 11	13
11 - 21	x
21 - 31	28
31 - 41	28
41 - 51	28

(i) 17 (ii) 16 (iii) 19 (iv) 13 (v) 15

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

Class-Interval	Frequency
11 - 21	12
22 - 32	x
33 - 43	22
44 - 54	18
55 - 65	2

(i) 28 (ii) 26 (iii) 29 (iv) 25 (v) 27

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

Class-Interval	Frequency
8 - 13	29
13 - 18	30
18 - 23	6
23 - 28	7
28 - 33	x

(i) $\frac{121}{4}$ (ii) $\frac{63}{2}$ (iii) $\frac{59}{2}$ (iv) $\frac{61}{2}$ (v) 31

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

Class-Interval	Frequency
20 - 27	19
28 - 35	8
36 - 43	16
44 - 51	x
52 - 59	1

(i) 43.5-52 (ii) 43-52 (iii) 43.5-51.5 (iv) 43-51.5 (v) 44-51

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

Class-Interval	Frequency
10 - 17	3
17 - 24	28
24 - 31	20
31 - 38	x
38 - 45	28

(i) 30.5-38 (ii) 31-38.5 (iii) 30.5-38.5 (iv) 31.5-37.5 (v) 31-38

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

Class-Interval	Frequency
29 - 34	17
35 - 40	x
41 - 46	25
47 - 52	15
53 - 58	6

(i) 34-41 (ii) 34.5-41 (iii) 35-40 (iv) 34.5-40.5 (v) 34-40.5

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

Class-Interval	Frequency
36 - 43	28
43 - 50	29
50 - 57	x
57 - 64	16
64 - 71	5

(i) 50-57 (ii) 49.5-57.5 (iii) 50-57.5 (iv) 49.5-57 (v) 50.5-56.5

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

Class-Interval	Frequency
39 - 48	22
49 - 58	x
59 - 68	20
69 - 78	14
79 - 88	21

(i) 49 (ii) 46 (iii) 50 (iv) 48 (v) 51

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

Class-Interval	Frequency
50 - 57	x
57 - 64	28
64 - 71	17
71 - 78	8
78 - 85	12

(i) 57 (ii) 60 (iii) 56 (iv) 55 (v) 58

30. If the sample data with range 50 has to be divided into 6 class intervals, then the length of the class is

(i) 9 (ii) 8 (iii) 6 (iv) 10 (v) 11

31. If the length of the class is 5, then the number of class intervals needed to represent data with range 50 is

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

32. The number of classes of class size 5 required to represent the given random sample in exclusive form
1 3 4 5 6 7 14 18 19 19 19 20 20 21 25 27 29 31 34 34 35 35 36 39 42 43 43 43 43 44 46 46 48 49 49

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

33. If some random sample data is arranged in a frequency distribution table in inclusive form with 2 - 11 as the first class, then the observation 14 falls in which class?

(i) 11.5-21.5 (ii) 11-20 (iii) 13-22 (iv) 12-21 (v) 12.5-20.5

34. If some random sample data is arranged in a frequency distribution table in exclusive form with 4 - 13 as the first class, then the observation 20 falls in which class?

(i) 13.5-21.5 (ii) 12-21 (iii) 12.5-22.5 (iv) 13-22 (v) 14-23

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

Class-Interval	36 - 42	43 - 49	50 - 56	57 - 63	64 - 70	71 - 77	78 - 84
Frequency	30	16	26	15	14	25	7

(i) 133 (ii) 134 (iii) 132 (iv) 131 (v) 136

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

Class-Interval	44 - 52	52 - 60	60 - 68	68 - 76
Frequency	19	12	10	26

(i) 65 (ii) 70 (iii) 66 (iv) 68 (v) 67

37. Which of the following are continuous variables?

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

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

38. Which of the following are discontinuous variables?

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

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

39. If the sum of the following frequency distribution is 31 , find the value of 'x'.

Class-Interval	**Frequency**
20 - 29	5
30 - 39	1
40 - 49	9
50 - 59	8
60 - 69	x
70 - 79	4

(i) 3 (ii) 4 (iii) 1 (iv) 6 (v) 5

40. The class marks of a frequency distribution are 20 , 31 , 42 , 53 . Find the class size and class intervals in inclusive form

(i) 10;15-25,25-35,35-45,45-55 (ii) 11;15-25,26-36,37-47,48-58 (iii) 11;14-25,25-36,36-47,47-58

(iv) 11;14-24,25-35,36-46,47-57 (v) 11;16-26,27-37,38-48,49-59

41. The class marks of a frequency distribution are 20.5 , 25.5 , 30.5 , 35.5 .
Find the class size and class intervals in exclusive form

(i) 5;18-23,23-28,28-33,33-38 (ii) 7;17-23,24-30,31-37,38-44 (iii) 5;19-24,24-29,29-34,34-39

(iv) 5;17-22,22-27,27-32,32-37 (v) 6;18-23,24-29,30-35,36-41

42. Which of the following are continuous variables?

a) Number of members in a family
b) Heights of children in a class
c) Number of players in a team
d) Population of cities
e) Weights of persons in a group

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

43. Which of the following are discrete variables?

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

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

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

a) 56 - 66 , 66 - 76 , 76 - 86...
b) 26 - 36 , 36 - 46 , 46 - 56,...
c) 59 - 69 , 70 - 80 , 81 - 91,...
d) 25.5 - 36.5 , 36.5 - 47.5 , 47.5 - 58.5...
e) 26 - 36 , 37 - 47 , 48 - 58,...

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

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

Class-Interval	8 - 16	17 - 25	26 - 34	35 - 43	44 - 52	53 - 61
Frequency	50	49	22	18	50	19

(i)

Class-Interval	7.5 - 16	16.5 - 25	25.5 - 34	34.5 - 43	43.5 - 52	52.5 - 61
Frequency	50	49	22	18	50	19

(ii)

Class-Interval	7.5 - 16.5	16.5 - 25.5	25.5 - 34.5	34.5 - 43.5	43.5 - 52.5	52.5 - 61.5
Frequency	50	49	22	18	50	19

(iii)

Class-Interval	8.5 - 16.5	17.5 - 25.5	26.5 - 34.5	35.5 - 43.5	44.5 - 52.5	53.5 - 61.5
Frequency	50	49	22	18	50	19

(iv)

Class-Interval	7.5 - 15.5	16.5 - 24.5	25.5 - 33.5	34.5 - 42.5	43.5 - 51.5	52.5 - 60.5
Frequency	50	49	22	18	50	19

(v)

Class-Interval	8 - 16	16 - 24	24 - 32	32 - 40	40 - 48	48 - 56
Frequency	36	10	16	42	36	38

Assignment Key

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