EduSahara™ Learning Center Assignment

Grade : Class VIII, ICSE
Chapter : Statistics
Name : Class Interval Table Concepts
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1. Given class interval 50 - 57 in exclusive form, its lower limit is

   (i) 50 (ii) 52 (iii) 47 (iv) 51 (v) 49

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2. Given class interval 32 - 35 in exclusive form, its upper limit is

   (i) 38 (ii) 34 (iii) 35 (iv) 32 (v) 36

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3. Given class interval 27 - 34 in exclusive form, its class size is

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

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4. Given class interval 18 - 26 in exclusive form, its class mark is

   (i) 22 (ii) 25 (iii) 23 (iv) 19 (v) 21

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5. Given class interval 46 - 56 in exclusive form, its mid value is

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

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6. If the upper and lower limit of class interval are 33 and 27 respectively, then the class interval is

   (i) 26.5 - 33.5 (ii) 27.5 - 32.5 (iii) 27 - 33 (iv) 26.5 - 33 (v) 27 - 33.5

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7. If the lower and upper limit of class interval are 18 and 26 respectively, then the class interval is

   (i) 17.5 - 26.5 (ii) 18 - 26 (iii) 18 - 26.5 (iv) 17.5 - 26 (v) 18.5 - 25.5

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8. The class boundaries of 30 - 38 which is in exclusive form are

   (i) 30 - 38.5 (ii) 30.5 - 37.5 (iii) 29.5 - 38.5 (iv) 29.5 - 38 (v) 30 - 38

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9. The class boundaries of 32 - 37 which is in inclusive form are

   (i) 31 - 38 (ii) 31 - 37.5 (iii) 32 - 37 (iv) 31.5 - 37.5 (v) 31.5 - 38

10. Convert the exclusive form of the class interval 47.5 - 57.5 to inclusive form

(i) 47.5 - 57.5 (ii) 48.5 - 56.5 (iii) 48 - 57.5 (iv) 47.5 - 57 (v) 48 - 57

11. Convert the inclusive form of the class interval 43 - 53 to exclusive form

(i) 42 - 53.5 (ii) 43 - 53 (iii) 42.5 - 54 (iv) 42 - 54 (v) 42.5 - 53.5

12. Convert the discontinuous form of the class interval 46 - 50 to continuous form

(i) 45 - 51 (ii) 45.5 - 51 (iii) 46 - 50 (iv) 45.5 - 50.5 (v) 45 - 50.5

13. Convert the continuous form of the class interval 47.5 - 56.5 to discontinuous form

(i) 48 - 56 (ii) 47.5 - 56.5 (iii) 48 - 56.5 (iv) 48.5 - 55.5 (v) 47.5 - 56

14. The class size used in the below table is

Class-Interval	42 - 47	48 - 53	54 - 59	60 - 65	66 - 71
Frequency	8	15	28	7	13

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

15. The class size used in the below table is

Class-Interval	28 - 33	33 - 38	38 - 43	43 - 48	48 - 53	53 - 58	58 - 63
Frequency	11	8	11	30	4	14	14

(i) 4 (ii) 6 (iii) 3 (iv) 5 (v) 7

16. Which of the following are true?

a) The difference between the true upper limit and true lower limit is called the class mark
b) Each numerical figure in a data set is called an observation
c) The true lower limit of the exclusive form class interval 40 - 50 is 40
d) The true lower limit of the inclusive form class interval 40 - 50 is 40
e) The number of times a particular observation occurs is called its frequency

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

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

a) 48 - 56 , 56 - 64 , 64 - 72...
b) 23.5 - 32.5 , 32.5 - 41.5 , 41.5 - 50.5...
c) 24 - 32 , 32 - 40 , 40 - 48,...
d) 51 - 59 , 60 - 68 , 69 - 77,...
e) 24 - 32 , 33 - 41 , 42 - 50,...

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

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18. In inclusive form representation, the observation 21 falls in which class?

(i) 11 - 21 (ii) 10 - 20 (iii) 22 - 31 (iv) 1 - 11 (v) 6 - 16

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19. In exclusive form representation, the observation 30 falls in which class?

(i) 30 - 40 (ii) 35 - 45 (iii) 40 - 50 (iv) 20 - 30 (v) 25 - 30

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

Class-Interval	Frequency
1 - 11	10
12 - 22	x
23 - 33	7
34 - 44	7
45 - 55	2

(i) 16 (ii) 19 (iii) 15 (iv) 18 (v) 17

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

Class-Interval	Frequency
7 - 12	5
12 - 17	18
17 - 22	25
22 - 27	14
27 - 32	x

(i) $\frac{57}{2}$ (ii) 30 (iii) $\frac{117}{4}$ (iv) $\frac{61}{2}$ (v) $\frac{59}{2}$

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

Class-Interval	Frequency
2 - 12	8
13 - 23	26
24 - 34	x
35 - 45	4
46 - 56	22

(i) 31 (ii) 26 (iii) 28 (iv) 30 (v) 29

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

Class–Interval	Frequency
9 - 19	24
19 - 29	11
29 - 39	x
39 - 49	9
49 - 59	23

(i) 37 (ii) 34 (iii) 32 (iv) 33 (v) 35

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

Class–Interval	Frequency
43 - 51	11
52 - 60	10
61 - 69	19
70 - 78	3
79 - 87	x

(i) 78 - 87.5 (ii) 79 - 87 (iii) 78 - 88 (iv) 78.5 - 88 (v) 78.5 - 87.5

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

Class–Interval	Frequency
20 - 26	20
26 - 32	x
32 - 38	10
38 - 44	19
44 - 50	2

(i) 26 - 32.5 (ii) 26.5 - 31.5 (iii) 25.5 - 32.5 (iv) 25.5 - 32 (v) 26 - 32

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

Class–Interval	Frequency
29 - 37	12
38 - 46	13
47 - 55	x
56 - 64	8
65 - 73	16

(i) 46 - 55.5 (ii) 46.5 - 55.5 (iii) 46.5 - 56 (iv) 46 - 56 (v) 47 - 55

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

Class–Interval	Frequency
14 - 19	26
19 - 24	26
24 - 29	8
29 - 34	x
34 - 39	13

(i) 28.5 - 34 (ii) 29.5 - 33.5 (iii) 29 - 34 (iv) 28.5 - 34.5 (v) 29 - 34.5

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

Class–Interval	Frequency
38 - 45	x
46 - 53	15
54 - 61	18
62 - 69	3
70 - 77	7

(i) 39 (ii) 41 (iii) 38 (iv) 36 (v) 37

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

Class–Interval	Frequency
27 - 32	9
32 - 37	x
37 - 42	15
42 - 47	12
47 - 52	29

(i) 38 (ii) 36 (iii) 37 (iv) 39 (v) 34

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30. If the sample data with range 30 has to be divided into 9 class intervals, then the length of the class is

(i) 2 (ii) 4 (iii) 3 (iv) 5 (v) 6

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31. If the length of the class is 5, then the number of class intervals needed to represent data with range 40 is

(i) 10 (ii) 12 (iii) 9 (iv) 8 (v) 7

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32. The number of classes of class size 7 required to represent

the given random sample in exclusive form

1 , 1 , 1 , 3 , 4 , 4 , 4 , 5 , 5 , 9 , 9 , 10 , 14 , 14 , 14
15 , 16 , 16 , 18 , 19 , 20 , 21 , 21 , 25 , 29 , 31 , 32 , 35 , 38 , 38
39 , 39 , 40 , 42 , 44 , 45 , 46 , 48 , 49 , 49

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

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33. If some random sample data is arranged in a frequency distribution table in inclusive form with 1 - 9 as the first class,

then the observation 19 falls in which class?

(i) 18.5 - 27.5 (ii) 20 - 28 (iii) 19.5 - 26.5 (iv) 18 - 26 (v) 19 - 27

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34. If some random sample data is arranged in a frequency distribution table in exclusive form with 1 - 10 as the first class,

then the observation 26 falls in which class?

(i) 18 - 27 (ii) 18.5 - 28.5 (iii) 19.5 - 27.5 (iv) 20 - 29 (v) 19 - 28

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

Class–Interval	42 - 50	51 - 59	60 - 68	69 - 77	78 - 86
Frequency	28	20	19	7	12

(i) 85 (ii) 83 (iii) 86 (iv) 87 (v) 88

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

Class–Interval	19 - 28	28 - 37	37 - 46	46 - 55	55 - 64	64 - 73	73 - 82	82 - 91
Frequency	30	13	19	12	9	6	2	28

(i) 116 (ii) 118 (iii) 120 (iv) 119 (v) 122

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37. Which of the following are continuous variables?

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

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

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38. Which of the following are discontinuous variables?

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

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

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39. If the sum of the following frequency distribution is 50 ,

find the value of 'x'.

Class-Interval	Frequency
10 - 19	9
20 - 29	7
30 - 39	x
40 - 49	2
50 - 59	4
60 - 69	8
70 - 79	10
80 - 89	1

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

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40. The class marks of a frequency distribution are 19.5 , 25.5 , 31.5 , 37.5 .
Find the class size and class intervals in inclusive form

(i) 6 ; 16 - 21 , 22 - 27 , 28 - 33 , 34 - 39

(ii) 6 ; 18 - 23 , 24 - 29 , 30 - 35 , 36 - 41

(iii) 6 ; 16 - 22 , 22 - 28 , 28 - 34 , 34 - 40

(iv) 6 ; 17 - 22 , 23 - 28 , 29 - 34 , 35 - 40

(v) 5 ; 17 - 22 , 22 - 27 , 27 - 32 , 32 - 37

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41. The class marks of a frequency distribution are 23 , 29 , 35 , 41 .
Find the class size and class intervals in exclusive form

(i) 6 ; 20 - 26 , 26 - 32 , 32 - 38 , 38 - 44

(ii) 8 ; 19 - 26 , 27 - 34 , 35 - 42 , 43 - 50

(iii) 6 ; 21 - 27 , 27 - 33 , 33 - 39 , 39 - 45

(iv) 7 ; 20 - 26 , 27 - 33 , 34 - 40 , 41 - 47

(v) 6 ; 19 - 25 , 25 - 31 , 31 - 37 , 37 - 43

42. Which of the following are continuous variables?

a) Weights of persons in a group
b) Number of players in a team
c) Number of members in a family
d) Wages of workers in a factory
e) Marks obtained by student in a particular subject

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

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43. Which of the following are discrete variables?

a) Number of players in a team
b) Temperature at a place over a month
c) Weights of persons in a group
d) Population of cities
e) Wages of workers in a factory

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

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

a) 21 - 29 , 29 - 37 , 37 - 45,...
b) 48 - 56 , 57 - 65 , 66 - 74,...
c) 45 - 53 , 53 - 61 , 61 - 69...
d) 21 - 29 , 30 - 38 , 39 - 47,...
e) 20.5 - 29.5 , 29.5 - 38.5 , 38.5 - 47.5...

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

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

45.

Class–Interval	8 - 15	16 - 23	24 - 31	32 - 39	40 - 47
Frequency	17	13	19	43	34

(i)

Class–Interval	7.5 - 15	15.5 - 23	23.5 - 31	31.5 - 39	39.5 - 47
Frequency	17	13	19	43	34

(ii)

Class–Interval	8 - 15	15 - 22	22 - 29	29 - 36	36 - 43
Frequency	34	46	42	35	15

(iii)

Class–Interval	8.5 - 15.5	16.5 - 23.5	24.5 - 31.5	32.5 - 39.5	40.5 - 47.5
Frequency	17	13	19	43	34

(iv)

Class–Interval	7.5 - 14.5	15.5 - 22.5	23.5 - 30.5	31.5 - 38.5	39.5 - 46.5
Frequency	17	13	19	43	34

(v)

Class–Interval	7.5 - 15.5	15.5 - 23.5	23.5 - 31.5	31.5 - 39.5	39.5 - 47.5
Frequency	17	13	19	43	34

Assignment Key

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

40) (iv)
41) (i)
42) (iv)
43) (iii)
44) (i)
45) (v)