

EduSahara™ Learning Center Assignment**Grade : Class X, ICSE****Chapter : Graphical Representation of Statistical Data****Name : Class Interval Table Concepts**

1. Given class interval 37 - 40 in exclusive form, its lower limit is

- (i) 36 (ii) 34 (iii) 38 (iv) 37 (v) 40
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2. Given class interval 45 - 51 in exclusive form, its upper limit is

- (i) 48 (ii) 50 (iii) 53 (iv) 52 (v) 51
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3. Given class interval 45 - 53 in exclusive form, its class size is

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

4. Given class interval 19 - 28 in exclusive form, its class mark is

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

5. Given class interval 37 - 46 in exclusive form, its mid value is

- (i) $\frac{81}{2}$ (ii) $\frac{85}{2}$ (iii) 42 (iv) $\frac{165}{4}$ (v) $\frac{83}{2}$
-

6. If the upper and lower limit of class interval are 32 and 28 respectively, then the class interval is

- (i) 27.5 - 32 (ii) 28 - 32.5 (iii) 27.5 - 32.5 (iv) 28.5 - 31.5 (v) 28 - 32
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7. If the lower and upper limit of class interval are 35 and 41 respectively, then the class interval is

- (i) 35.5 - 40.5 (ii) 34.5 - 41 (iii) 35 - 41 (iv) 35 - 41.5 (v) 34.5 - 41.5
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8. The class boundaries of 31 - 37 which is in exclusive form are

- (i) 31 - 37.5 (ii) 31.5 - 36.5 (iii) 31 - 37 (iv) 30.5 - 37 (v) 30.5 - 37.5
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9. The class boundaries of 44 - 46 which is in inclusive form are

- (i) 43.5 - 47 (ii) 43.5 - 46.5 (iii) 43 - 46.5 (iv) 44 - 46 (v) 43 - 47
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10. Convert the exclusive form of the class interval 21.5 - 24.5 to inclusive form

- (i) 22.5 - 23.5 (ii) 22 - 24 (iii) 21.5 - 24.5 (iv) 22 - 24.5 (v) 21.5 - 24
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11. Convert the inclusive form of the class interval 12 - 21 to exclusive form

- (i) 11.5 - 21.5 (ii) 12 - 21 (iii) 11 - 21.5 (iv) 11.5 - 22 (v) 11 - 22
-

12. Convert the discontinuous form of the class interval 19 - 26 to continuous form

- (i) 19 - 26 (ii) 18.5 - 26.5 (iii) 18.5 - 27 (iv) 18 - 26.5 (v) 18 - 27

13. Convert the continuous form of the class interval 15.5 - 25.5 to discontinuous form

- (i) 15.5 - 25 (ii) 16 - 25.5 (iii) 16 - 25 (iv) 15.5 - 25.5 (v) 16.5 - 24.5

The class size used in the below table is

14.

Class-Interval	50 - 59	60 - 69	70 - 79	80 - 89	90 - 99	100 - 109	110 - 119	120 - 129
Frequency	11	22	8	5	17	12	13	26

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

The class size used in the below table is

15.

Class-Interval	41 - 51	51 - 61	61 - 71	71 - 81	81 - 91	91 - 101	101 - 111
Frequency	9	1	20	5	11	2	3

- (i) 13 (ii) 7 (iii) 10 (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 exclusive form class interval 50 - 60 is 50
 e) The true lower limit of the inclusive form class interval 50 - 60 is 50

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

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

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

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

18. In inclusive form representation, the observation 20 falls in which class?

- (i) 10 - 20 (ii) 9 - 19 (iii) 5 - 15 (iv) 0 - 10 (v) 21 - 30

19. In exclusive form representation, the observation 38 falls in which class?

- (i) 38 - 48 (ii) 48 - 58 (iii) 33 - 38 (iv) 28 - 38 (v) 43 - 53

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

Class-Interval	Frequency
20 - 30	25

31 - 41	17
42 - 52	3
53 - 63	x
64 - 74	28

(i) 56 (ii) 61 (iii) 58 (iv) 57 (v) 59

The class mark of the class with frequency x is

21.

Class-Interval	Frequency
20 - 30	14
30 - 40	21
40 - 50	5
50 - 60	x
60 - 70	11

(i) 58 (ii) 55 (iii) 52 (iv) 56 (v) 54

The mid value of the class with frequency x is

22.

Class-Interval	Frequency
10 - 15	30
16 - 21	24
22 - 27	x
28 - 33	14
34 - 39	18

(i) $\frac{49}{2}$ (ii) $\frac{47}{2}$ (iii) 25 (iv) $\frac{97}{4}$ (v) $\frac{51}{2}$

The mid value of the class with frequency x is

23.

Class-Interval	Frequency
2 - 7	11
7 - 12	15
12 - 17	14
17 - 22	4
22 - 27	x

(i) 25 (ii) $\frac{97}{4}$ (iii) $\frac{49}{2}$ (iv) $\frac{47}{2}$ (v) $\frac{51}{2}$

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

Class-Interval	Frequency
36 - 41	1
42 - 47	9
48 - 53	11
54 - 59	23
60 - 65	x

- (i) 59.5 - 65.5 (ii) 59 - 66 (iii) 60 - 65 (iv) 59 - 65.5 (v) 59.5 - 66

The class boundaries of the class with frequency x is

25.

Class-Interval	Frequency
49 - 57	23
57 - 65	17
65 - 73	13
73 - 81	11
81 - 89	x

- (i) 80.5 - 89.5 (ii) 80.5 - 89 (iii) 81 - 89.5 (iv) 81 - 89 (v) 81.5 - 88.5

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

26.

Class-Interval	Frequency
30 - 37	11
38 - 45	13
46 - 53	25
54 - 61	13
62 - 69	x

- (i) 62 - 69 (ii) 61 - 70 (iii) 61.5 - 69.5 (iv) 61 - 69.5 (v) 61.5 - 70

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

27.

Class-Interval	Frequency
39 - 45	16
45 - 51	22
51 - 57	x
57 - 63	2
63 - 69	8

- (i) 51.5 - 56.5 (ii) 50.5 - 57 (iii) 51 - 57.5 (iv) 50.5 - 57.5 (v) 51 - 57

The lower limit of the class with frequency x is

28.

Class-Interval	Frequency
15 - 25	x
26 - 36	9
37 - 47	22
48 - 58	6
59 - 69	11

- (i) 16 (ii) 12 (iii) 15 (iv) 17 (v) 14

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

Class-Interval	Frequency

19 - 24	28
24 - 29	14
29 - 34	x
34 - 39	1
39 - 44	26

(i) 34 (ii) 36 (iii) 33 (iv) 35 (v) 32

30. If the sample data with range 60 has to be divided into 8 class intervals, then the length of the class is

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

31. If the length of the class is 15, then the number of class intervals needed to represent data with range 60 is

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

If some random sample data is arranged in a frequency distribution table in

32. inclusive form with 3 - 12 as the first class,
then the observation 26 falls in which class?

(i) 22.5 - 32.5 (ii) 22 - 31 (iii) 23 - 32 (iv) 24 - 33 (v) 23.5 - 31.5

If some random sample data is arranged in a frequency distribution table in

33. exclusive form with 1 - 7 as the first class,
then the observation 25 falls in which class?

(i) 24 - 30 (ii) 25.5 - 30.5 (iii) 26 - 32 (iv) 25 - 31 (v) 24.5 - 31.5

Find the sum of frequencies for the given table

34.

Value	13	19	29	40	42	61	79	84	86
Frequency	1	2	1	1	1	1	1	1	1

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

Given class interval table, find the sum of frequencies.

35.

Class-Interval	16 - 21	22 - 27	28 - 33	34 - 39	40 - 45	46 - 51
Frequency	18	18	17	29	11	27

(i) 120 (ii) 117 (iii) 121 (iv) 119 (v) 122

Given class interval table, find the sum of frequencies.

36.

Class-Interval	17 - 23	23 - 29	29 - 35	35 - 41
Frequency	15	24	15	27

(i) 81 (ii) 80 (iii) 79 (iv) 82 (v) 83

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

Class-Interval	12 - 18	19 - 25	26 - 32	33 - 39	40 - 46	47 - 53
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Frequency	17	40	31	45	46	20
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(i)

Class-Interval	11.5 - 17.5	18.5 - 24.5	25.5 - 31.5	32.5 - 38.5	39.5 - 45.5	46.5 - 52.5
Frequency	17	40	31	45	46	20

(ii)

Class-Interval	11.5 - 18	18.5 - 25	25.5 - 32	32.5 - 39	39.5 - 46	46.5 - 53
Frequency	17	40	31	45	46	20

(iii)

Class-Interval	12 - 18	18 - 24	24 - 30	30 - 36	36 - 42	42 - 48
Frequency	48	44	14	41	13	25

(iv)

Class-Interval	11.5 - 18.5	18.5 - 25.5	25.5 - 32.5	32.5 - 39.5	39.5 - 46.5	46.5 - 53.5
Frequency	17	40	31	45	46	20

(v)

Class-Interval	12.5 - 18.5	19.5 - 25.5	26.5 - 32.5	33.5 - 39.5	40.5 - 46.5	47.5 - 53.5
Frequency	17	40	31	45	46	20

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

- a) 16 - 23 , 23 - 30 , 30 - 37,...
 b) 37 - 44 , 44 - 51 , 51 - 58...
 c) 40 - 47 , 48 - 55 , 56 - 63,...
 d) 16 - 23 , 24 - 31 , 32 - 39,...
 e) 15.5 - 23.5 , 23.5 - 31.5 , 31.5 - 39.5...
 (i) {c,d,e} (ii) {c,a} (iii) {d,b} (iv) {c,a,b} (v) {a,b,e}

39. A histogram consists of

- (i) rectangles (ii) sectors (iii) triangles (iv) squares

40. The width of the rectangles in a histogram represents

- (i) class interval (ii) frequency of the class
 (iii) mid values of the class (iv) number of classes

41. In a histogram

- (i) the length and width of each rectangle are in proportion
 (ii) the lengths and widths of all rectangles are equal
 (iii) the lengths of all rectangles are equal
 (iv) the width of all rectangles are equal

42. The frequency polygon is one drawn using

- (i) end points of classes and frequencies
 (ii) upper boundaries of classes and cumulative frequencies
 (iii) mid point of classes and frequencies
 (iv) lower boundaries of classes and greater than cumulative frequencies

43. Less than cumulative curves are drawn using

- (i) upper boundaries of classes and less than cumulative frequencies
 (ii) lower boundaries of classes and greater than cumulative frequencies

- (iii) lower boundaries of classes and less than cumulative frequencies
 - (iv) mid values of classes and less than cumulative frequencies
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44. Greater than cumulative curves are drawn using

- (i) upper boundaries of classes and greater than cumulative frequencies
 - (ii) mid values of classes and greater than cumulative frequencies
 - (iii) upper boundaries of classes and less than cumulative frequencies
 - (iv) lower boundaries of classes and greater than cumulative frequencies
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Assignment Key

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