

# INTERNATIONAL INDIAN SCHOOL BURAIDAH

Worksheet for the Academic Year 2023-24

**CLASS: X    SUBJECT: MATHEMATICS    DATE: 12-06-2023**

## LESSON:14 - STATISTICS

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### Level 1:

1. Find the class marks of the classes 15-35 and 45-60      (Ans: 25 & 52.5)
2. If the mean of first  $n$  natural numbers is 15, then find  $n$       (Ans: 29)
3. Find the mean of the data using an empirical formula, when it is given that mode = 50.5 and median = 45.5      (Ans: 43)

4. Following table shows the weight of 12 students:

Weights (in kgs)	67	70	72	73	75
No. of students	4	3	2	2	1

Find the mean weight of the students.      (Ans: 70.25kg)

5. If the mean of the following data is 18.75. Find the value of  $p$

$x_i$	10	15	$p$	25	30
$f_i$	5	10	7	8	2

(Ans:  $p=20$ )

6. Find the mean of the following frequency distribution using step deviation method:

Class-interval	0-10	10-20	20-30	30-40	40-50
No. of workers	7	10	15	8	10

(Ans: 25.8)

7. Find the mode of the following distribution:

Class	0-10	10-20	20-30	30-40	40-50	50-60	60-70
Frequency	8	10	10	16	12	6	7

(Ans: 36)

8. The mean and median of 100 observations are 50 and 52 respectively. The value of the largest observation is 100. It was later found that it is 110 not 100. Find the true mean and median

(Ans: mean-50.1, Median-52)

9. The heights of 50 students of class X of a school are recorded and following data obtained:

Heights(cm)	130-135	135-140	140-145	145-150	150-155	155-160
No. of students	4	11	12	7	10	6

(Ans: 144.17cm)

Find the median height of the students.

**Level 2**

10. The median of the following data is 525. Find the values of x and y, if the total frequency is 100  
(Ans: x = 9, y = 15)

Class interval	Frequency
0-100	2
100-200	5
200-300	x
300-400	12
400-500	17
500-600	20
600-700	y
700-800	9
800-900	7
900-1000	4

11. The frequency distribution table of agriculture holding in a village is given below:

Area of land(ha)	1-3	3-5	5-7	7-9	9-11	11-13
No. of families	20	45	80	55	40	12

Find the modal agriculture holding of the village

(Ans: 6.2 hectares)

12. Find the arithmetic mean of the following frequency distribution:

Marks	No. of students
Below 10	12
Below 20	22
Below 30	35
Below 40	50
Below 50	70
Below 60	86
Below 70	97
Below 80	104
Below 90	109
Below 100	115

13. The mean of the following distribution is 53. Find the missing frequency 'a'

class	0-20	20-40	40-60	60-80	80-100
Frequency	12	15	32	a	13

(Ans: a = 28)

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