

SUBJECT: MATHEMATICS    STD-IX  
 TOPIC- STATISTICS  
 ASSIGNMENT (ADVANCE)

**Answer the following questions.**

- If  $a$  is the mean of first 20 prime numbers  $p_1, p_2, p_3, \dots, p_{20}$ , then find the value of  $(p_1 - a) + (p_2 - a) + (p_3 - a) + \dots + (p_{20} - a)$
- The mean of 100 items was found to be 30. If at the time of calculation, two items were wrongly taken as 32 and 12 instead of 23 and 11. Then calculate the correct mean.
- The mode and mean of a certain data is 20 and 30 respectively. Find the median of the data.
- Find the value of  $n$ ,  
 If  $\sum_{i=1}^n (x_i - 16) = -12$  ,  $\sum_{i=1}^n (x_i - 30) = -40$
- If  $\sum_{i=1}^n (x_i - 20) = 15$  , then find the value of  $\bar{x}$
- The class marks of a distribution are 47,52,57 and 62. Determine the
  - Class size
  - Class interval
- Find the missing frequency if the mean of given frequency distribution is 17.25.

$x_i$	5	10	15	20	25
$f_i$	2	3	?	6	5

- For a particular year, following distribution of the ages (in years) of primary school teachers in a particular state,

Age (in years)	Less than 20	Less than 25	Less than 30	Less than 35	Less than 40	Less than 45	Less than 50
No of teachers	11	32	51	49	27	6	4

- Determine the class limits
  - Draw a histogram
- Draw a histogram and a frequency polygon by using the given data.

Age (in years)	5-9	10-14	15-19	20-24	25-29	30-34	35-39
No of persons	10	28	32	48	50	35	12

- Survey on the playing children of various age group is

Age (in years)	1-2	2-3	3-5	5-7	7-10	10-15	15-17
No of children	5	3	6	12	9	10	4

Draw the histogram for the above data.