



ST. LAWRENCE HIGH SCHOOL



A Jesuit Christian minority Institution

Subject: Mathematics Class-X

Date: 21/11/2020

Answer key of Worksheet-5

Chapter: statistics

Topic- Arithmetic mean and median

1. Choose the correct alternative.

$$1 \times 15 = 15$$

a) If $x_1, x_2, x_3, \dots, x_n$ are the n values of a variable associated with frequencies $f_1, f_2, f_3, \dots, f_n$ then arithmetic mean is i) $\frac{\sum f_i x_i}{\sum f}$ ii) $\frac{\sum x_i}{n}$ iii) $1/n (\sum f_i x_i)$ iv) both (i) and (iii)

b) If there are n number of values of a variable as P . what is the arithmetic mean ?
i) np ii) P iii) 1 iv) none of these

c) If 2 variables x and y are related like $y = ax + b$ then arithmetic mean of $y =$ i) $a \times$ arithmetic mean of $x + b$ ii) $ax + b$ iii) $a + b$ iv) none of these

d) Find a when arithmetic mean is 20.6. i) 15 ii) 10 iii) 20 iv) none of these

Variable (x_i)	10	15	a	25	35
Frequency y_i	3	10	25	7	5

e) The arithmetic mean between $(x-1)$ and $(x+7)$ is i) $x+4$ ii) $x+3$ iii) $x-3$ iv) $x-4$

f) The arithmetic mean between $\sqrt{5}$ and $3\sqrt{5}$ is i) $2\sqrt{5}$ ii) $\sqrt{5}$ iii) 5 iv) none of these

g) The mean of eight numbers is 25. If 5 is subtracted from each number, what will be the new mean?

i) 20 ii) 15 iii) 16 iv) 18

- h) The mean of 14 numbers is 6. If 3 is added to every number, what will be the new mean?
i) 18 ii) 10 **iii) 9** iv) 12
- i) The heights of 5 runners are 160 cm, 137 cm, 149 cm, 153 cm and 161 cm respectively. Find the mean height.
i) 152 cm ii) 165 cm iii) 160 cm iv) none of these
- j) Find the mean of first 6 multiples of 4.
i) 12 **ii) 14** iii) 18 iv) 20
- k) Find the arithmetic mean of first 7 natural numbers.
i) 6 ii) 7 **iii) 4** iv) 9
- l) If the mean of 9, 8, 10, x , 12 is 15, find the value of x .
i) 40 ii) 35 iii) 20 **iv) 36**
- m) If the mean of 5 observations x , $x+4$, $x+6$, $x+8$ and $x+12$ is 16, Find the value of x .
i) 10 ii) 15 iii) 20 iv) 25
- n) The mean of the heights of 6 boys is 152 cm. If the individual heights of 5 of them are 151 cm, 153 cm, 155 cm, 149 cm and 154 cm, find the height of the sixth boy.
i) 155 cm **ii) 150 cm** iii) 160 cm iv) 158 cm
- o) A cricketer has a mean score of 58 runs in 9 innings. Find out how many runs are to be scored by him to raise the mean score to 61.
i) 78 **ii) 88** iii) 98 iv) 58

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