



Statistics Ex 7.1 Q1

Answer :

Given:

$x:$	5	6	7	8	9
$f:$	4	8	14	11	3

First of all prepare the frequency table in such a way that its first column consist of the values of the variate (x_i) and the second column the corresponding frequencies (f_i).

Thereafter multiply the frequency of each row with corresponding values of variable to obtain third column containing ($f_i x_i$).

Then, sum of all entries in the column second and denoted by $\sum f_i$ and in the third column to obtain $\sum f_i x_i$.

x_i	f_i	$f_i x_i$
5	4	20
6	8	48
7	14	98
8	11	88
9	3	27
	$\sum f_i = 40$	$\sum f_i x_i = 281$

$$\begin{aligned}
 \text{We know that mean, } \bar{X} &= \frac{\sum f_i x_i}{\sum f_i} \\
 &= \frac{281}{40} \\
 &= 7.025
 \end{aligned}$$

Hence, mean = 7.025

Statistics Ex 7.1 Q2

Answer :

Given:

x_i	19	21	23	25	27	29	31
f_i	13	15	16	18	16	15	13

First of all prepare the frequency table in such a way that its first column consist of the values of the variate (x_i) and the second column the corresponding frequencies (f_i).

Thereafter multiply the frequency of each row with corresponding values of variable to obtain third column containing ($f_i x_i$).

Then, sum of all entries in the column second and denoted by $\sum f_i$ and in the third column to obtain

$$\sum f_i x_i -$$

x_i	f_i	$f_i x_i$
19	13	247
21	15	315
23	16	368
25	18	450
27	16	432
29	15	435
31	13	403
	$\sum f_i = 106$	$\sum f_i x_i = 2650$

We know that mean, $\bar{X} = \frac{\sum f_i x_i}{\sum f_i}$

$$= \frac{2650}{106}$$

$$= 25$$

Hence, mean = 25

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