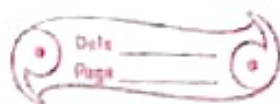


Ch. 14

Ex. 14.4



Mean = Average = $\frac{\text{sum of all observations}}{\text{total no. of observations}}$

$$= \frac{1+2+3+4+5+10+1+3+3+4+2}{10}$$
$$= \frac{28}{10} = 2.8$$

Median - by arranging in ascending order
0, 1, 2, 3, 3, 3, 3, 4, 4, 5

No. of observations = 10

as no. of observations is even.

$$\text{Median} = \frac{\left(\frac{n}{2}\right)^{\text{th}} \text{ observation} + \left(\frac{n+1}{2}\right)^{\text{th}} \text{ observation}}{2}$$

$$= \frac{\left(\frac{10}{2}\right)^{\text{th}} + \left(\frac{10+1}{2}\right)^{\text{th}}}{2}$$

$$= \frac{5^{\text{th}} + (5+1)^{\text{th}}}{2} = \frac{5^{\text{th}} + 6^{\text{th}}}{2} = \frac{3+3}{2} = 3$$

Mode - To find mode we arrange data in ascending order.

0, 1, 2, 3, 3, 3, 3, 4, 4, 5.

3 occurs 4 times

So mode = 3.

Q2) Mean = Average = $\frac{\text{Sum of all observations}}{\text{total no of observations}}$

$$= \frac{41 + 39 + 43 + 52 + 46 + 67 + 54 + 40 + 45 + 52 + 48 + 40 + 42 + 52 + 60}{15}$$

$$= \frac{808}{15}$$

$$= 53.8$$

Median - by arranging in ascending order
 39, 40, 40, 41, 42, 48, 48, 52, 52, 52, 54, 60, 62, 96, 98.

total no of observation = 15.

Median = $\frac{(n+1)}{2}$ Observation.

$$= \frac{(15+1)}{2} \text{th} \quad "$$

$$= \frac{16}{2} \text{th} \quad "$$

$$= 8 \text{th} \quad "$$

$$= 52.$$

Mode - 52 occurs more times than any other value.
 so Mode = 52.