

Exercise 14G

Question 10:

Arrange the terms in an ascending order, we have

| Marks | 9 | 20 | 25 | 40 | 50 | 80 |
|-----------------|---|----|----|----|----|----|
| No. of students | 4 | 6 | 16 | 8 | 7 | 2 |

Now preparing the cumulative frequency, we have

| Marks | No of students(Frequency) | Cumulative Frequency |
|-------|---------------------------|----------------------|
| 9 | 4 | 4 |
| 20 | 6 | 10 |
| 25 | 16 | 26 |
| 40 | 8 | 34 |
| 50 | 7 | 41 |
| 80 | 2 | 43 |

Here, number of students =43, which is odd

median =
$$\left(\frac{n+1}{2}\right)$$
nd term
= $\left(\frac{43+1}{2}\right)$ nd term
= 22nd term
= marks of 22nd studen

= 22nd term =marks of 22nd student But the above table shows that each one of the students from 11th to 26th gets 25 marks.

So the 22nd student gets 25 marks

median of marks = 25