Exercise 14G

Question 12:
Arrange the terms in an ascending order, we have

Variate	Frequency	Cumulative Frequency
16	9	9
18	8	17
20	13	30
23	4	34
25	4	38
26	6	44
28	11	55
30	5	60

Here, n = 60, which is even.

$$\therefore \quad \text{median} = \frac{1}{2}\left[\left(\frac{n}{2}\right)\text{th term} + \left(\frac{n}{2}+1\right)\text{th term}\right]$$

$$= \frac{1}{2}\left[(30\text{th term} + 31\text{th term})\right][\because n = 60]$$

$$= \frac{1}{2}(20 + 23)$$

$$= \left(\frac{1}{2} \times 43\right)$$

$$= 21.5$$

$$\therefore \quad \text{median} = 21.5$$

********** END *********