Practice Questions of Median

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Median Questions

Q1.

CI	F	CF
10-20	2	2
20-30	4	6
30-40	1	7
40-50	2	9

$N = 9$

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

$= \frac{9+1}{2} = \frac{10}{2} = 5^{th}$ term

$M = l_1 + \left[\frac{\frac{N}{2} - cf}{f}\right] \times i$

$l_1 = 20$

$f = 4$

$i = 10$

$CF = 2$

$N = 9$

$= 20 + \left[\frac{\frac{9}{2} - 2}{4}\right] \times 10$

$= 20 + [\quad]$

$$= 20 + \frac{\left[\frac{9-4}{2}\right]}{2} \times 10$$

$$= 20 + \frac{5}{2} \times 20$$

$$= 20 + 50 \Rightarrow 70$$ Ans

Q.2

CI	F	CF
10-20	1	1
20-30	1	2
30-40	1	3
40-50	1	4

$N = 4$

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

$$\frac{\left(\frac{4}{2}\right)^{th} + \left(\frac{4}{2}+1\right)^{th}}{2} \Rightarrow \frac{2+3}{2} = \frac{5}{2}$$

$l = 30$

$n = 4$

$M = l_1 + \left[\frac{N}{2} - c\right]$ 2.5th

N = 4
f = 1
CF = 2
i = 16

$$M = L_1 + \left[\frac{N}{2} - cf\right] \frac{}{f} \times i$$

1er

$$= 30 + \left[\frac{42 - 2}{1}\right] \times 10$$

$$= 30 + 0 \Rightarrow 30 \text{ Ans}$$

Q3.

CI	F	CF
1500-2000	14	14
2000-2500	56	70
2500-3000	60	130
3000-3500	86	216
3500-4000	74	290
4000-4500	62	352
4500-5000	48	400
	N = 400	

$$\text{Even} = \frac{\frac{4200}{21} + \frac{4200}{2} + 1}{2}$$

$$= \frac{200 + 201}{2} \Rightarrow \frac{401}{2}$$

$$\Rightarrow 200.5$$

$l_1 = 3000$

$f = 86$

$CF = 130$

$N = 400$

$i = 500$

$$3000 + \left[\frac{200 - 130}{86}\right] \times 500$$

$$3000 + \left[\frac{70}{86}\right] \times 500$$

$$3000 + 406.98$$

$$= 3406.98 \text{ Ans}$$