

Class Interval	frequency	cf
0-10	5	5
10-20	x	$(5+x)$ cf
20-30	20	$25+x$
30-40	15	$40+x$
40-50	y	$40+x+y$
50-60	<u>5</u>	$45+x+y$
	<u>60</u>	

$$\text{Median} = 28.5$$

\therefore Median class is 20-30, $l = 20$, $h = 10$

$$\begin{aligned} \sum f_i &= 60 \\ 45 + x + y &= 60 \\ \Rightarrow x + y &= 15 \dots \textcircled{1} \end{aligned}$$

$$\text{Median} = 28.5$$

Subs. in eqn ①

$$8 + y = 15$$

$$\Rightarrow y = 7$$

$$\therefore x = 8, y = 7$$

$$l + \frac{\frac{N}{2} - cf_x}{f} \times h = 28.5$$

$$20 + \frac{30 - 5 - x}{20} \times 10 = 28.5$$

$$\Rightarrow \frac{25 - x}{2} = 28.5 - 20$$

$$\Rightarrow 25 - x = 8.5 \times 2$$

$$\begin{aligned} \Rightarrow x &= 25 - 17 \\ &= 8 \end{aligned}$$