

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>	

Median = 28.5

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

$$\Sigma f_i = 60$$

$$45 + x + y = 60$$

$$\Rightarrow x + y = 15 \dots \textcircled{1}$$

Subs. in eqn ①

$$8 + y = 15$$

$$\Rightarrow y = 7$$

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

Median = 28.5

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

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

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

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

$$\Rightarrow x = 25 - 17$$

$$= 8$$