

3.

C I	frequency	class mark	$f_i x_i$	cf
0 - 20	1	10	10	1
20 - 40	1 f_0	30	30	2
40 - 60	f 2 f_1	50	100	4
60 - 80	1 f_2	70	70	5
80 - 100	1	90	90	6
total	6		300	

$$\text{Mean} = \frac{\sum f_i x_i}{\sum f_i} = \frac{300}{6} = 50$$

Modal class 40 - 60

$$l = 40, h = 20$$

$$\text{Mode} = l + \frac{f_1 - f_0}{2f_1 - f_0 - f_2} \times h$$

$$= 40 + \frac{2-1}{4-2} \times 20$$

$$= 40 + \frac{1}{2} \times 20$$

$$= 50$$

$$\frac{N}{2} = \frac{6}{2} = 3$$

Median class 40 - 60

$$l = 40, h = 20$$

$$\text{Median} = l + \frac{\frac{N}{2} - \text{cf}}{f} \times h$$

$$= 40 + \frac{3-2}{2} \times 20$$

$$= 40 + \frac{1}{2} \times 20$$

$$= 50$$

Median = Mean = Mode = 50, no

4. Same as 3