

Q1 Death of 40 US presidents with ages  
 90, 70, 66, 76, 83, 74, 96, 98, 80, 67, 78, 77  
 73, 54, 58, 88, 70, 81, 60, 78, 51, 66, 66, 81,  
 62, 57, 64, 79, 63, 71, 66, 70, 68, 60, 77, 7  
 57, 85 and 30.

51	1. 9076	70	1. 8457
54	1. 7324	70	1. 8451
55	1. 7404	70	1. 8451
52	1. 7559	71	1. 8513
57	1. 7559	71	1. 8513
60	1. 7782	72	1. 857
60	1. 7782	73	1. 8633
62	1. 7924	74	1. 8692
63	1. 7996	76	1. 8808
64	1. 8062	77	1. 8865
66	1. 8195	77	1. 8865
66	1. 8195	78	1. 8921
66	1. 8195	79	1. 8976
67	1. 8261	80	1. 9031
68	1. 8325	81	1. 9085
68	1. 8325	81	1. 9025
	30. 4169	83	1. 9191
	41. 59	85	1. 9294
		88	1. 9444

Q1 Death of 40 US presidents with age

90, 70, 66, 76, 83, 74, 96, 98, 80, 67, 78, 77  
 73, 54, 58, 88, 70, 81, 60, 78, 51, 66, 66, 81  
 62, 57, 64, 79, 63, 71, 66, 70, 68, 60, 73, 7  
 57, 85 and 30.

51	1. 1076	76	1. 8457
54	1. 7324	70	1. 8451
55	1. 7404	70	1. 8457
52	1. 7559	71	1. 8513
57	1. 7559	71	1. 8513
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66	1. 8195	79	1. 8976
57	1. 8261	80	1. 9031
58	1. 8325	81	1. 9085
58	1. 8325	81	1. 9020
30-4169		83	1. 9191
4159	88	88	1. 9294
		88	1. 9444

90	1.9542
96	1.9823
98	1.9912
93	1.9912

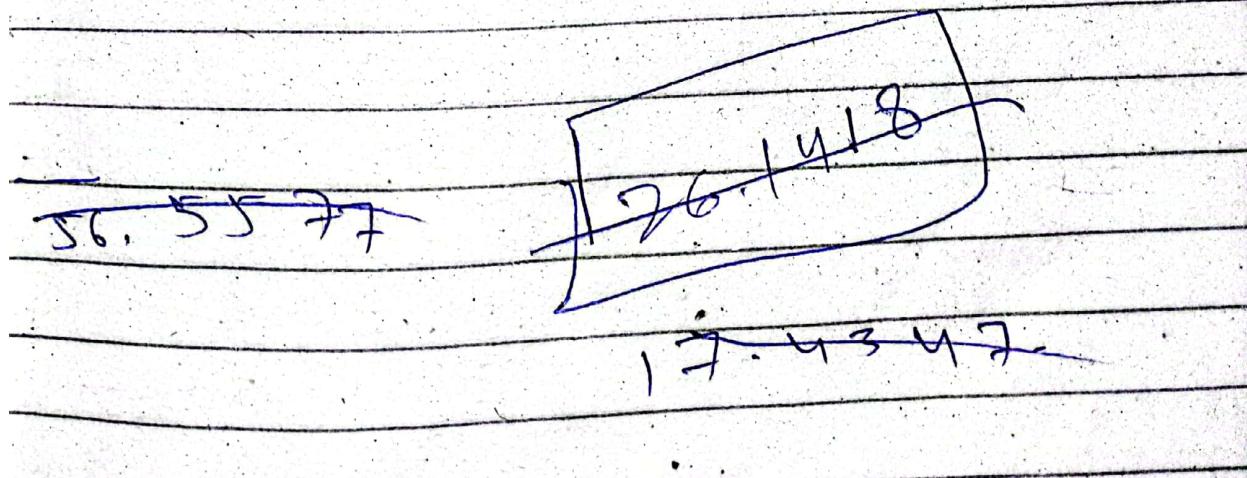
  

$\Sigma x =$ $\rightarrow 2868$	$\Sigma \log x =$ $\rightarrow 73.9924$
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$\rightarrow \Sigma 1/x =$ $\therefore$ $= \frac{2868}{40}$	Median $\Rightarrow \frac{40+1}{2} \Rightarrow 20.5$ Avg 20 <sup>th</sup> & 21 <sup>th</sup> term. $\frac{70+71}{2}$ Median = 70.5
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Mode = 66 (Most repeated)



(ii)

Stem	Leaf	F	D
5	1 4 5 7 7		
6	0 0 2 3 4 6 6 6 7 8 8		
7	0 0 0 1 1 2 3 4 5 7 7 8 8 0		
8	0 1 1 3 5 8		
9	0 6 8		

$$\text{Median} = \frac{70 + 71}{2} \Rightarrow 70.5$$

Mode = Repeated = 66

CB	frequency	Range = $\frac{98 - 51}{5}$
50 - 54	2	9.42
55 - 59	3	$\approx 9$
60 - 64	5	
65 - 69	7	
70 - 74	8	
75 - 79	6	
80 - 84	4	
85 - 89	2	
90 - 94	1	
95 - 99	2	

~~51 - 59~~  
~~50 - 59~~

60 - 68

69 - 78

78 - 86

87 - 95

96 - 104

5

12

11

8

2

2

Not  
some

ans. Tuttoral

Ans. CB

51 - 55

3

50.5 - 55.5

56 - 60

9

55.5 - 60.5

61 - 65

3

60.5 - 65.5

66 - 70

10.

65.5 - 70.5

71 - 75

5

70.5 - 75.5

76 - 80

8

75.5 - 80.5

81 - 85

4

80.5 - 85.5

86 - 90

2

85.5 - 90.5

91 - 95

0

90.5 - 95.5

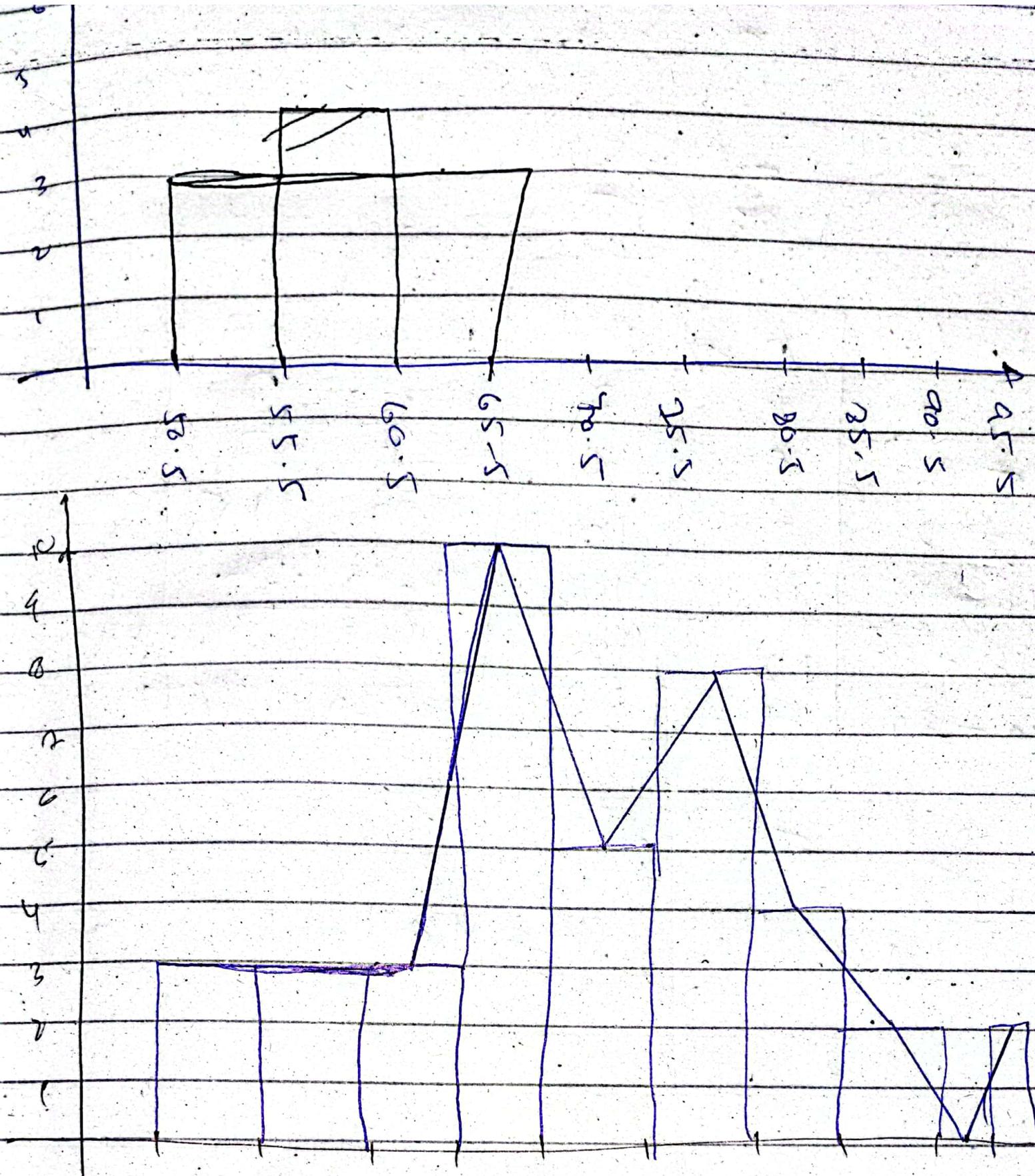
96 - 100

2

95.5 - 100.5

$\Sigma = 40$





<del>0-4</del>	4-8	8-12	12-16	16-20
2	5	8	11	12

$$\sum f = 42$$

$$\text{Mean} = \frac{\sum f x_i}{\sum f} = \frac{2x2 + 5x6 + 8x10 + 11x12 + 12x16}{42}$$

$$\text{Mean} = 14.5 \\ \approx 15$$

Med.	Mo	M.P	CB	CF
0-4	2	2	0-4	2
4-8	5	6	4-8	7
8-12	8	10	8-12	15
12-16	11	14	12-16	26
16-20	12	13	16-20	38
20-24	9	22	20-24	47

$$\frac{Uf}{2} = 23.5$$

$$l = 16, n = 40, Cf = 26$$

$$l + \frac{n}{f} \left( \frac{\sum f}{2} - Cf \right)$$

$$\text{Med} = 16 + \frac{4}{12} (23.5 - 26)$$

$$= 15.0.9 = 15$$

(iii) Mode

$$l + \frac{f_m - f_1}{2f_m - f_1 - f_2} \times h$$

$$f_m = 12 \quad f_1 = 11, \quad f_2 = 9 \quad h = 4$$

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

$$= 16 + \left( \frac{12 - 11}{24 - 11 - 9} \right) \times 4$$

$$= 17$$

Symmetry of distribution  
→ Negative skewed

$$\text{Med} > \text{Mod} > \text{Mean}$$

$$17 > 15.0.9 > 14.5$$