Su Mo Tu We Th Fr Sa

Assignment - 2

Date: / /

(1.a.)

range	f		X	fx
1 - 10	2	0.5 - 10.5	5.5	11
11 - 20	7	10.5 - 20.5	15.5	108.5
21 - 30	10	20.5 - 30.5	25.5	255
31 - 40	3	30.5 - 40.5	35.5	106.5
41 - 50	1	40.5 - 50.5	45.5	45.5
	23			526.5

$$\bar{X} = \frac{\Sigma fx}{\Sigma f} = \frac{526.5}{23} = 22.89 \text{ Ans}$$

b.)

range	f	X	fx
0-10	2	5	10
10-20	7	15	105
20-30	15	25	375
30-40	10	35	350
50-60 ↩ 40-50	11	45	495
	5	55	275
	50		1610

$$\bar{X} = \frac{\Sigma fx}{\Sigma f} = \frac{1610}{50} = 32.2 \text{ Ans}$$

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c.)

Exam Score	No. of student		x	fx
51 - 60	4	50.5 - 60.5	55.5	222
61 - 70	8	60.5 - 70.5	65.5	524
71 - 80	15	70.5 - 80.5	75.5	1132.5
81 - 90	8	80.5 - 90.5	85.5	684
91 - 100	5	90.5 - 100.5	95.5	477.5
	40			3040

$$\bar{X} = \frac{\Sigma fx}{\Sigma f} = \frac{3040}{40} = 76 \text{ Ans}$$

(2.)

	Group - 1	Group - 2
Mean wages	75	60
No. of workers	1000	1500

$$\bar{X}_{12} = \frac{X_1 N_1 + X_2 N_2}{N_1 + N_2} = \frac{75 \times 1000 + 60 \times 1500}{1000 + 1500} = \frac{75000 + 90000}{2500}$$

$$= \frac{165000}{2500} = 66 \text{ Ans}$$

(3.)

Medical examination	No. examined	Mean weight (Pounds)
A	50	113
B	60	120
C	90	115

$$\bar{X}_{123} = \frac{X_1 N_1 + X_2 N_2 + X_3 N_3}{N_1 + N_2 + N_3} = \frac{113 \times 50 + 120 \times 60 + 115 \times 90}{50 + 60 + 90}$$

$$= \frac{5650 + 7200 + 10350}{200} = \frac{23200}{200} = 116 \text{ Ans}$$