



Universidad del sureste

Materia: Bioestadística

Tema: unidad 4

Maestro:

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Grupo: A

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Distancia recorrida	Num. De Camiones	X_i	f_{xi}	X_i-X	$f X_i-X$
0 – 19	8	9.5	$8*9.5=76$	$9.5-94.9=85.4$	$8*85.4=683.2$
20 – 39	12	29.5	354	65.4	784.8
40 – 59	17	49.5	841.5	45.4	771.8
60 – 79	26	69.5	1807	25.4	634.4
80 – 99	35	89.5	3132.5	5.4	189
100 – 119	47	109.5	5146.5	14.6	686.2
120 – 139	34	129.5	4403.	34.6	1176.4
140 – 159	17	149.5	2541.5	54.6	928.2
160 - 179	4	169.5	678	74.6	298.4
	n=200		$X = \frac{\sum f_{xi}}{n}$ $\frac{18,980}{200} = 94.9$		$\sum_{i=1}^{i-1} f_{xi-x}$ $Dx = \frac{6152.4}{N200} = 30.762 \approx 3$

Numero de pasajeros	Numero de vuelos	X_i	f_{xi}	X_i-X	$f X_i-X$
50 – 59	2	54.5	$2*54.5=109$	$54.5-80.5=26$	$2*26=52$
60 – 69	3	64.5	193.5	16	48
70 - 79	18	74.5	1,341	6	108
80 – 89	12	84.5	1,014	4	48
90 – 99	8	94.5	756	14	112
100 - 109	2	104.5	209	24	48
	n=45		$X = \frac{\sum f_{xi}}{N}$ $\frac{3622.5}{45} = 80.5$		$Dx = \frac{416}{N 45} = 9.2$

Numero de pasajeros	Numero de camiones	X_i	fX_i	$ X_i - X $	$F X_i - X $
0 – 19	8	9.5	$8 \cdot 9.5 = 76$	$9.5 - 63.37 = 53.87$	$8 \cdot 53.87 = 430.96$
20 – 39	12	29.5	354	33.87	406.44
40 – 59	17	49.5	841.5	13.87	235.79
60 – 79	26	69.5	1,807	6.13	159.38
80 – 99	35	89.5	3132.5	26.13	912.55
	N = 98		$\frac{6,211}{N \ 98} = 63.37$		D_x $\frac{2,145.12}{N \ 98} = 21.889$

clase	f	X_i	fX_i	$X_i - X$	$(X_i - X)^2$	$F(X_i - X)^2$
10 - 19	15	14.5	217.5	-45.43	2,063.88	$15 \cdot 2063.88 = 30,958.2$
20 – 29	25	24.5	612.5	-35.43	1,255.28	31,382
30 – 39	35	34.5	1205.5	-23.43	548.96	19,2313.6
40 – 49	45	44.5	2002.5	-15.43	238.08	10,713.6
50 – 59	55	54.5	2997.5	-5.43	29.48	1,621.4
60 – 69	65	65.5	4192.5	4.57	20.88	1,357.2
70 - 79	75	74.5	5687.5	14.57	212.28	15,921
80 – 89	80	84.5	6760	24.57	603.68	48,294.4
	N=395		$\frac{23,65.5}{N = 395} = 59.93$			=4,972.52

$$\sqrt{4,972.52} = \sqrt{4,972.52} = 12.62 \quad \sqrt{12.62} = 3.55$$

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clases	f	Xi	fXi	Xi-X	(Xi-X) ²	f(Xi-X) ²
0 – 4	3	2	6	-153.66	23,611.39	3*23,611.39=70,834.17
5 – 9	5	7	35	-148.66	22,099.79	110,498.95
10 – 14	7	12	84	-143.66	20,638.19	144,467.33
15 – 19	8	17	136	-138.66	19,226.59	153,812.72
20 – 24	2	22	44	-133.66	17,864.99	35,729.98
25 - 29	6	27	112	-128.66	16,553.39	99,320.34
	N= 3		<u>463=155.66</u> N=3			=614,663.49

$$\sqrt{614,663.49} = \sqrt{614,663.49} = 307,331.745 \quad \sqrt{307,331.745} = 554.37$$

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