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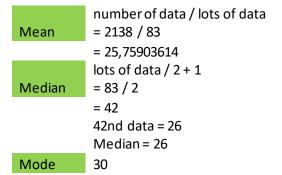
Class: TIF K 22KB

UTS: Statistika

1. By referring to this following table

Age	Frequency	Total
20	5	100
21	7	147
22	13	286
23	4	92
24	6	144
25	7	175
26	7	182
27	5	135
28	3	84
29	4	116
30	15	450
31	3	93
33	3	99
35	1	35
Total	83	2138

a. State Mean, Median and Mode



b. Make Distribution of Frequency table

Range many classes	largest value - smallest value = 35 - 20 = 15 = 1 + 3.3 log 83 = 7
	range / number of classes
class length	= 15 / 7
	= 2,142857143

Age	Frequency
20 - 21	12
22 - 23	17
24 - 25	13
26 - 27	12
28 - 29	7
30 - 31	18
33 - 35	4
Total	83

c. Calculate Variance

Variance						
Age	Frequency	xi	fi.xi	xi-x	(xi-x)^2	fi.(xi-x)^2
20 - 21	12	20,5	246	-5,259036145	27,65746117	331,8895
22 - 23	17	22,5	382,5	-3,259036145	10,62131659	180,5624
24 - 25	13	24,5	318,5	-1,259036145	1,585172013	20,60724
26 - 27	12	26,5	318	0,740963855	0,549027435	6,588329
28 - 29	7	28,5	199,5	2,740963855	7,512882857	52,59018
30 - 31	18	30,5	549	4,740963855	22,47673828	404,5813
33 - 35	4	34	136	8,240963855	67,91348527	271,6539
total	83		2149,5			1268,473

 $S^2 = fi.(xi-x)^2/n = 15,28280592$

so the number of variants is 15,28280592

2. 10 Students that have difference of time study tested by IPS test Students: A B C D E F G H I J Time (X): 2 3 1 3 4 3 4 1 1 2 Score (Y): 6 7 4 8 8 7 9 5 4 6 Is there correlation between time study and test score?

data	х	у	x^2	y^2	xy
1	2	6	4	36	12
2	3	7	9	49	21
3	1	4	1	16	4
4	3	8	9	64	24
5	4	8	16	64	32
6	3	7	9	49	21
7	4	9	16	81	36
8	1	5	1	25	5
9	1	4	1	16	4
10	2	6	4	36	12
Total	24	64	70	436	171

 $r = n(totalxy) - (totalx)(totaly) / akar(n(totalx^2)-(totalx*totalx)))(n(totaly^2)-(totaly*totaly)))$

The very strong positive correlation (0.961692972) between study time and test scores indicates that more study time tends to increase test scores.