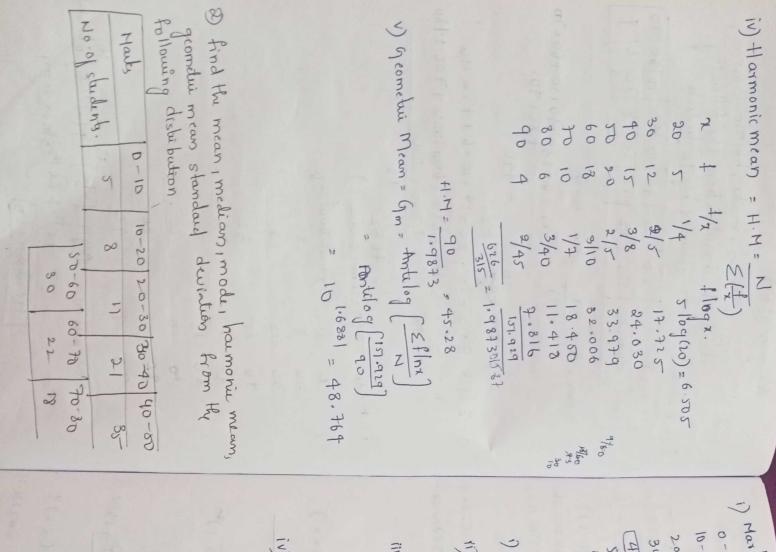
	Ass	ignmer	1-4			
		V	median made born.			
O fr	nd the "	stande	median, mode, harmonic mean, and deviation from the following arts obtained by 90 students			
900	meur,	of m	arks obtained by 90 students			
dist	Mar	ce	120 30 40 10 60 2 60			
the second	Maint S	tudente	20 30 40 50 60 70 80 90 5 12 15 20 18 10 6 4			
i)	Mean =	7 2 5	Exi when 1900			
			Exi = 20+30 +40 + 50 +60 + 70			
		Mark and	+ 8,0+9p.			
		70/2	4 110 = 440 4 2 = 85.			
N =	Sfi =	5+12	+ 15+20+18+10+6+4.=90"			
	えっ	Sfiri	= 100 + 360 + 600+ 1000 + 700 + 480			
		N	+ 360 + 1080			
			= 452			
ii) Mode = 50 (20 times occurred.)						
ill)	Z	f	Cummulation feig.			
	20	5	5			
	30	12	17			
	40	15	32			
	20	20	52			
	60	1-8	70			
	of	10	80			
	80	6	86			
	90	4	9 to 18			
	Me	adiam	= Avgoj (90) they (90+1) obsuration			
	. 10		= 45th f +6 th obsuration			
		<u></u>				
	Meadian = 50					



= = = = = = = = = = = = = = = = = = =	Marks 0-10 10-20 20-30 30-40 50-60 50-60 70-80
Meanon = L+  N=150 = 75  N=150 = L+  N=150 = N=150  N=150 = L+  N=150 = L+  N=150 = L+  N=150 = L+  N=150 = N=150  N=	70.0
Medical 2 150 275  N=150 275  N=150 27 22 47  N=150 30 11 25 47  10-10 8 15  10-10 8 15  10-10 8 15  10-10 8 15  24)  24)  24)  24)  24)  24)  24)  24	21 Po 21 Po 22 Po
(ii) Mean of the first and the	4 + + + + + + + + + + + + + + + + + + +
15-21-30) = 48.77.  (8 0 39-21-30) = 10 = 48.4  (8 0 39.884  (8 0 39.8	55 1575 65 143 65 143 65 143 65 143 65 143 75 1575
248.42 10 = 48.42 10 150 10 150	120 13 120 13 120 13 1430 13 1430 13 1430 13 1430 13 1430 13
	1 1 2 2 3 2 5 6 6 7 3 2 5 6 6 7 3 2 5 6 6 7 3 2 5 6 7 3

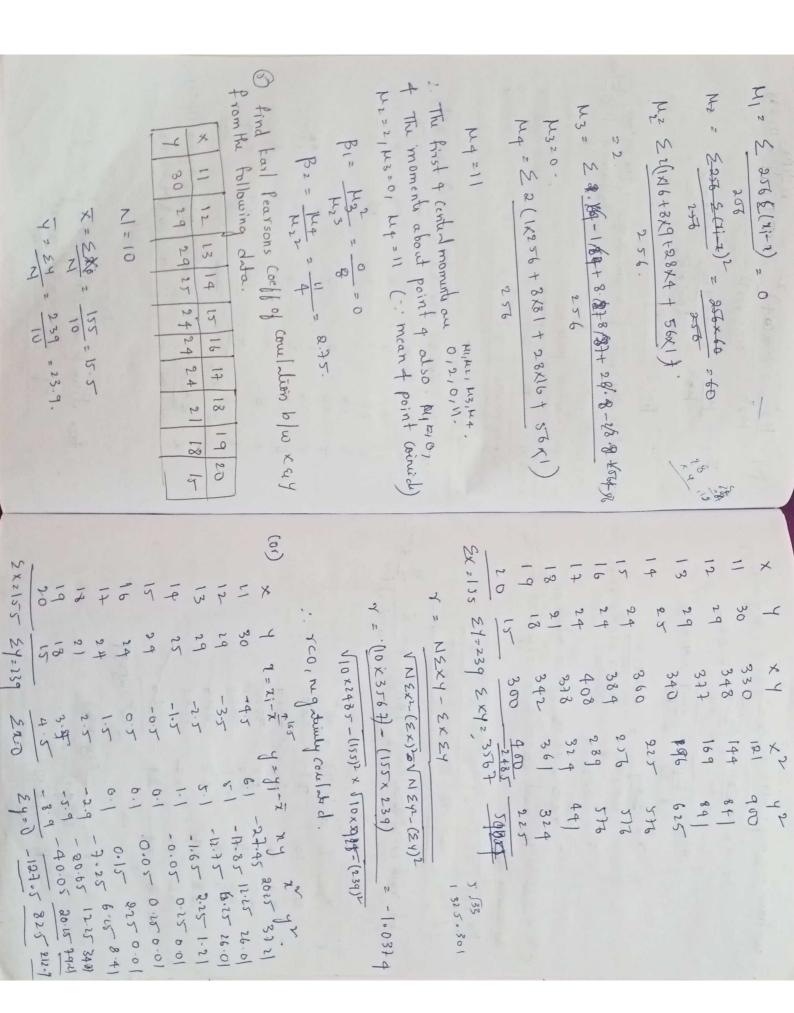
(3) find the configurate of streamers of but to be to 80.10 54-18) TE 58 Ch-18 7; mi h (mi-x) नेक ने भ 9 55 000 of puliculi in a hospital. following distribution of somm cholestro) Lumb Central = LLE = Stimi-7)k 1231 M3 = 6(-24.2)3+ 10(-14.5)2+12(2.2)3+18/12.3 K=4, M4 = 6(-14.4)\$ + 10(-14.5)4+22 (8.5)4 Strum Charshal 50-10 65 10 1=2= pla = \$ 6(24.5)+10(-14.5) +12(5.5) E-1-M1= 5 (624.5) 4 10(-145) + 22(5.5) pathent 5h =80 2 -600.41 80 (SH-15) (SK-5E) (42-444) 24012 3113 312 34310.001 (65-395) = 133.615. ール・ア + 18(15-5)4 (m1-2) (m+2) (m1-2)9 + 18(15.5)2 6 10 24 22/4 2/0-15 -3048617 44205.045 + 98US-5) 400-45 -14306-18 360300-06-30-25 166375 915.064 0 60-70 30-20 8090g 江湖北 0 = 45-186-19

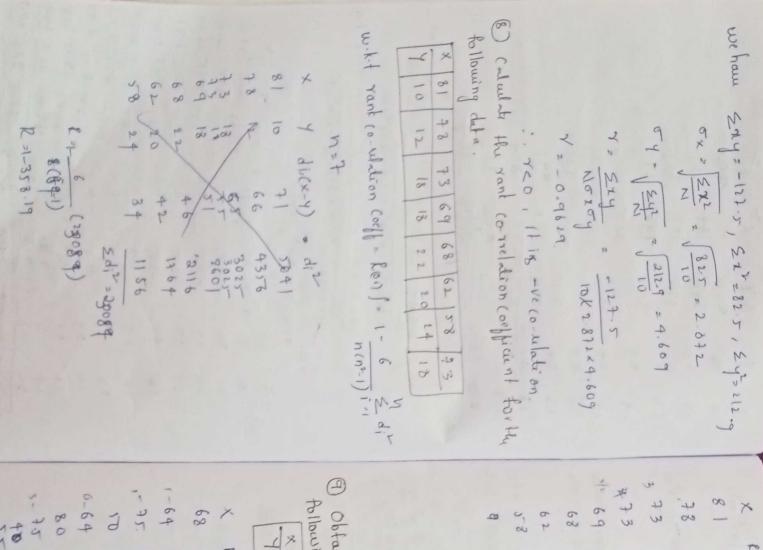
@ Want the 1st of moment about the mean momente about the point 4 of the following distribution ey home calculate BIIB2. Moments about Mean Weakly comings B1 - 43 = (-600+) = 0.1509 171 = 0.388 No. 01 10.5035 P2 = N9 72 = 82-3 = -0.99 K35 5h-28 0 Mar (11-7) (11-x) (11-x)3 17 0 (133.615)3 : 45786 : 2763 8+56+(168)+(280)+(200) (133 815)2 7 2 3 23 56 17 36 23 (x1-x) 254

for disurd car central moments are gruin py ME = 28-11(21-x) 925

というないけっ

1684756+8





(1) The tollowing au the measurements of air vitarity of evaporation coefficient of burning full dropping Fit a straight lime to them dot a by the method of least square & with to estimate evaporation coeff of a drophet when air velocity 190 cm/sa. in an impulu engin. Evaporation(0) (mm/w) 4 0.18 0.37 0.35 0.18 0.56 6,7 Air volocity (com/we) x 20 60 100 140 180 220 20 0.18 3.6 400 60 0.37 22.2 3600 3 Normalegns au Ey=na+ bEx -0 Id egnot straight lim 4=aton O 1=1-6 (Edi + 12 (m - m) + 12 (m^2-m)+ C= 0.545 =1-6 (72+ 1/2 (23-2)+ 1/2 (33-3)+1/2 (23) 6.57 0.78 109,2 1960 A 636 1 929 1 454400 532 000 009511 8468 411 100.8 324vo 514 = a 2x + b 2x - (1) 300 340 380 260

5 abstitutingin 2 f 3 -) 7 8 6 = 16 a + b 2: 000 21989.4 = 2000 a f b 532 000

a=1041 a=0,1038

10 0.003 180 -1.813 a = 0.069, b = 0.0038

=) 4 = axtb => 4 = 0.069\$ + 0.0038

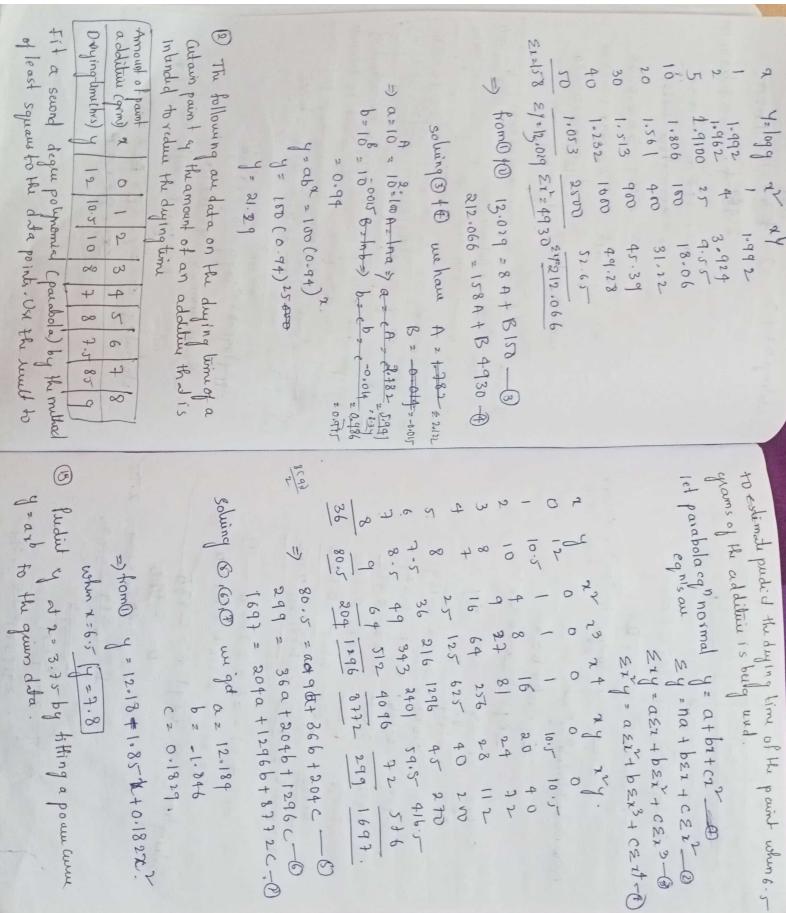
8800.01(061) 690.0 = h (= 061= x umm)

bt.0 = h

(1) The following data on the pounts of of high performance radial this made by a actain manufacturer that are still a subt. after haway been driven for the grum no. of timelis.

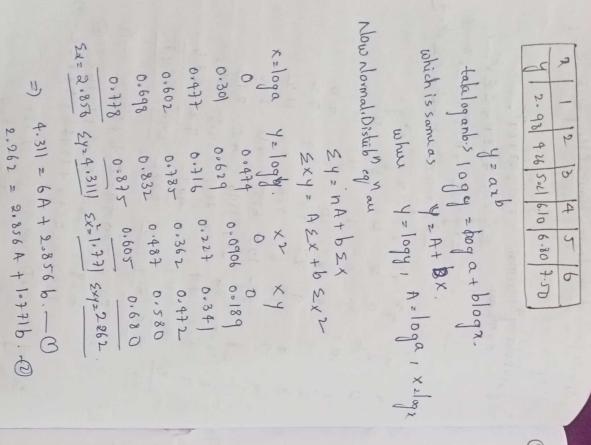
fil anexponential cum y = ab & by applying the method of least squares to the data points. Ou the usual to estimate what preantage of the manufactures high performance what preantage of the manufactures high performance. Miles drium (thousand) x 1 2 5 10 20 30 40 50 [1.1 11.3]

apply logonbes logy = loga+ 2 logb. Normaling " ai Ey = nB+ AEX -0 this is same as Y= A+Bz. when R=loga, B=logb, Y=logy. (3-1x3 ++ x38 : 1x3



(B) Rudint of at 2 = 3.75 by fifting a pountume of = arb to the game data. solving & 600 m gd a = 12.189 10.5 => 80.5 = act 9 dt 36 b + 204 c - 8 5. t 100/2 => from 4 = 12.18 + 1.85 1 + 0.1822? 2.8 18.4= H 3.9= x unloss (1697 = 204a + 1296b+8772C-0 299 = 36at2046+1296c-6 204 1296 2772 299 1697. 25 125 625 64 512 4096 72 576 36 216 1296 343 240 59.5- 416.5 256 . har ha C2 0.1819, p = -1.846 40 200 10.5 10.5 28 112

5x4 - a 2x+ b 2x3+ c2x+ 8-4-022+224+252+652



Extandard devi-tion 10.8 17.8

Standard devi-tion 10.8 17.8

Standard devi-tion 10.8 17.8

Lungussion line Use Hu regussion election at the June of y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 y lung y but x=50 cy also estimate the value for y-30 cy also estimate the y-30 cy also estim

 $2 \times 000 + 15 \text{ gamoby}$   $2 \times 000 + 15 \text{ gamoby}$   $2 \times 000 + 15 \text{ gamoby}$   $2 \times 000 + 2 \times 0.606 \text{ g} - 0.42 \times (4.4.5)$   $3 \times 000 + 2 \times 0.606 \text{ g} - 0.42 \times (41.5)$   $4 \times 0.254 + 2.0.66 + 39.5$   $4 \times 0.6922 - 27.334 + 47.5$   $4 \times 0.6922 - 27.334 + 47.5$   $4 \times 0.6923 + 20.166$   $4 \times 0.6923 + 20.166$   $4 \times 0.6923 + 20.166$ 

Solving from ( ) w get 4 = 0.486

=> a=100.4\$5= soty = 2.985

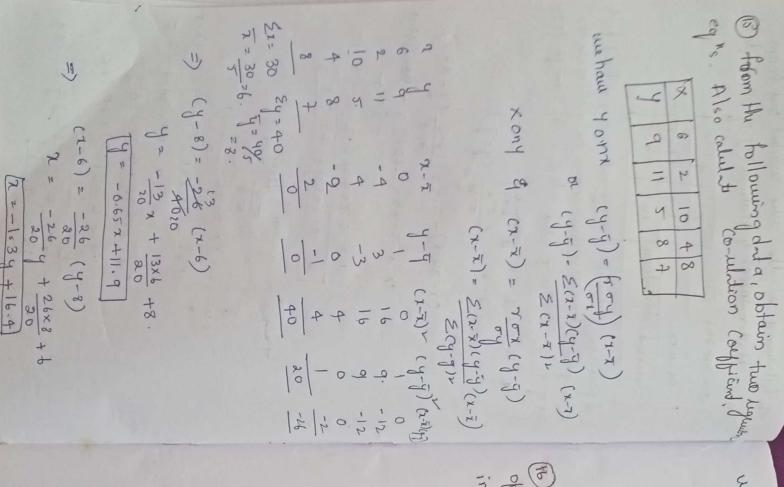
6-100.49 - 3.090

=> 42 2.98 2 0.5)

R = 6.245 (30) + 27.49

2 = 34,79

9 = 2.98 (3.75)0·5) = 5.847



(6) Show that  $\theta$  and and t = -0.65of ugussion, is gimen by tame =  $(t-x^2)$   $\frac{1}{2}$   $\frac{1}$