Final Paper Of Statistics Name.

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Class boundries	f	u	La
360 — 375	4	36,5 382.5	f v 1460 2295
375 — 390 390 — 405	8	397.5	3180
405 — 420 420 — 435	7	412.5	2887.5
430 — 433	4	427.5	17 10

£fu=11,5325

$$Mea_{1} = 397.67$$
 $Mea_{2} = 397.67 \cong 38. = 3981-$

Mode =
$$Z = L_1 + f_1 - f_0 \times i$$

 $2f_1 - f_0 - f_2$

$$f_{1} = 8$$
 $f_{2} = 7$
 $f_{0} = 6$

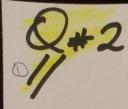
$$\Rightarrow z = 390 + 8 - 6 \times 15$$

Median:

$$f=10$$
 $f=8$

$$Q_{1} = 375 + \begin{bmatrix} 39/4 - 4 \\ 6 \end{bmatrix} \times 9$$

$$Q_{1} = 375 + \left[\frac{3 \cdot 25}{6} \right] \times 9$$



S.D. of Mean
$$S.D = \int \frac{2(n-\bar{n})^2}{n-1}$$

$$S \cdot D = \int \frac{2(n-n)^{2}}{n-1}$$

$$S \cdot D = \int \frac{2(n-n)^{3}}{n-1}$$

Mean =
$$\bar{n} = \frac{2}{n} = \frac{24}{6} = 4$$

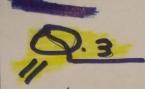
Set#2.

Mean =
$$\frac{2}{n} = \frac{78}{6} = 13$$

 $n = 13$
 $S \cdot D = \sqrt{\frac{2(x-x)^2}{n-1}}$
 $S \cdot D = \sqrt{\frac{112}{6-1}} = \sqrt{\frac{112}{5}} = \sqrt{22.4}$

S.D=4.732

S.D and Mean of Set "2" is increased from Set I-



Classes	I fi	1 Ni	1	Pini	xi2	finiz
65-84	15	74.5	11	17.5	5550.2	1248806.25
85-104	18	94.5	17	10	8930-25	2893401
105-124	27	114.5	309	1.5	13110-25	9557372-52
125-149	10	134.5	134	5	18090-25	1809025
145-164	6	154.5	927		23870.25	859329
165-184	5	174.5	872.5	5 3	.0450.25	761256.25
185-204/	13	194.5	2528	\$ 3	7830.25	6393312.25

$$S^2 = \frac{\sum f_{x_i}^2}{n} - \left(\frac{\sum f_{x_i}}{n}\right)^2$$

$$S^{2} = \frac{23522502.27}{94} - \left(\frac{11583}{94}\right)^{2}$$

$$\mathcal{L}$$
 $S = \sqrt{\frac{2fixi^2}{n} - \left(\frac{2fixi}{n}\right)^2}$

When two fair dice are throw.
The possibilities are as below.

S = (1,1)(1,2)(1,3)(1,4)(1,5)(1,6) (2,1)(2,2)(2,3)(2,4)(2,5)(2,6) (3,1)(3,2)(3,3)(3,4)(3,5)(3,6) (4,1)(4,2)(4,3)(4,4)(4,5)(4,6) (5,1)(5,2)(5,3)(5,4)(5,5)(5,6)(6,1)(6,2)(6,3)(6,4)(6,5)(6,6)

The possibilities of getting a double

A = (6,6)

P(A) = 1

*Let B denotes that a sum of 8 or more dots occur.

B= 2(2,6), (3,5), (3,6), (4,4), (4,5), (4,6), (5,3), (5,6) (6,7) (6,5)

P(B)= 15 = 5 36 12

0.51-

An event of and B is independent of C_2 if P(A) = P(A)(C)

and P(B) = P(B)(C)

=) P(A) = P(A)(C) $P(A) = P(A \cap C)$

= P(a, n -- -- n Am).

= P (A1) x D (A2) ---- AP (Am)

P(B) = P(B)(C)= $P(B \cap C)$ = $P(B_1) \times P(B_2) - \cdots \times P(B_m)$. 0,5

@ Ci's from a partition of - the sample space, by the law of total Probability:

P(A nB)= = P(A nB |Ci)7 (Ci)

 $= \leq_{i=1}^{m} P(A|C_i)P(B|C_i)P(C_i)$

Since A and B are condionally independent-

* B is independent of all Ci's

Ci's four a postition of the sample space, by low of probability

 $P(B \cap C_i) = \underset{i=1}{\overset{m}{\geq}} P(B/c_i) P(c_i)$

 $= \underset{i=1}{\overset{m}{\not}} p(B/c) p(ci)$

: B is condinally independent of all Ci's-