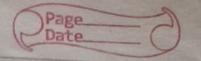


n+1 => odd. 7 + (2) +1)
2 - (2) page smoothing by bin median. Bin 1 8 8, 8 Bin 21 21 21 24, 26,28, 29, Bin 28 28 28 10, 2, 19, 18, 20, 18, 25, 28, 22 Binsize: -3 Short 2, 10, 18, 18, 19, 20, 22, 25, 28 Bin 2: 18, 19, 20 Bin 3: 22,25,28 smoothing by bin means. 3 Bin 1: 10 10 10 Bin 2: 19 19 19.

Bin 3: 25 25 25 Bin by boundabies: Bin 1: 2,18,18 Bin 2: 18,20,20 Bin 3: 22 , 28, 28. smoothing by bin median. Bin 1: 10,10,10 Bin 2: 19,19,19. Bing 25,25,25



6,9,12,13,15,25,50,70,72,92,204, 232, 250, 257, 87

SOPPE

1913:456 6 7 18 93 10 10 10 6,9,12,13,15,25,80,70,72,87,92, 204 = 232 , -250 , 257

Bin 1 6,9,12,13 Bin 2 15,25,50,70 Bin 3 72,87,92,204 Bin 4 232, 250, 257.

Smoothing by bin means

10, 10, 10, 10. 6+9+12+13 = 30=10. Bin:1

Bin:2 40, 40, 40, 40

Bin:4. 246,246,246. 184,184,184.

Bin by boundanies

Bin 1: 6 40 13 6,6,13,13

Bin 2: 19 38: 70' 15,15,70,70

Bin 3: 72 90: 204 72,72,72,204 Bin1: Bin 4: 232 257 257. J. 232, 257, 257

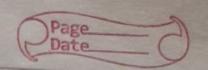
sin by smoothing by mediun

Bin 1: 10,10,10,10.

Bin 2: 37,37,37,37

Bin 3: 89, 89, 89, 89.

Rin 4: 250,250,250,250



6, 9, 12, 13, 15, 25, 50, 70, 72, 92, 204, 232,

Troumsfohm Point= V

V' = (V-min)

(max - min) * (newmyx - newmin) + newmin.

v' = (v - min) + (new man - new min) + new min.cmase - min

13, 15, 16, 16, 19, 20, 23, 29, 35, 41, 44, 53, 62, 69,

criven hange (0,1).

V=date to be + ransform: 45

newmin Ruter min 13

> hange": 0

ween most : 1

v'= (v-min) * (new max - new min) + newmin (masc-min)

= (45-13) * (1-0)+0) (72-13)

32 +1+1.

=39+ 91-11-10 0.5423 *1+0.

-9291. = 0.5423 Million.

(v=min) * cnewmax-new min) + newmin,
(max-min)

200,300,400,600,1000 min=0, max=1.

given range 0-1.

Deta transform v -> 300.

The new min -> 0. min = 200

new max -> 1. max=1000

(300 - 200) + (1-0) + 0 + (400 - 200) + (1-0) + 0

100 * 1 TO 0.25

137

* Z score Normalisation

Z=(X-H)/0

0-125

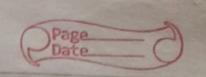
x = value for which z score is calculated.

o = stundard periation.

mean salay = 54,000 standar Devidention = 16,000 x = 73,6000.

 $Z = (x - 11)/\sigma$ = 73,600 - 54000

19600 =1.225



6 = [[(xi- M)2.

 $= \sqrt{\frac{1}{4}} \frac{\epsilon}{(8-13.25)^2}$

Epison of the mean.

$$z = (x - \lambda l)$$

$$(5/\sqrt{n}).$$

Mean salary 65,000

$$00 = 85,800$$
 $0 = 18000$
 $0 = 18000$

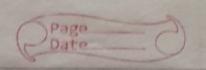
$$6 = \sqrt{\frac{2}{N}} (x_i - u)^2$$

$$6 = \sqrt{\frac{N}{4}} (20 - 8)^2$$

$$7 = \sqrt{\frac{N}{4}} (20 - 8)^2$$

$$6 = \sqrt{\frac{4}{4}}$$
 $6 = \sqrt{\frac{36}{36}}$

(x-11)2



U=8+10+15+20-

0= 4.65

Z=(x-u)

= (10-13.25)

=-0.698

15-13.25 20-13.25 4.65 4.65 =0.376 = 1.45

(V-min) * (newmax-newmin) + newmin (max-min)

(57-13) * (1).

59. 0.745

(Page)

19, 15, 16, 16, 16, 19, 20, 23, 29, 35, 41, 44, 53, 62, 69, 72

Bin size = 5

Bin 4: 13, 15, 16.

Bin 2: 16, 19, 20

Bin 3: 23, 29, 35

Bin 4: 41, 44, 53

Bin 5: 62, 69, 72.

Bin by mean:

女

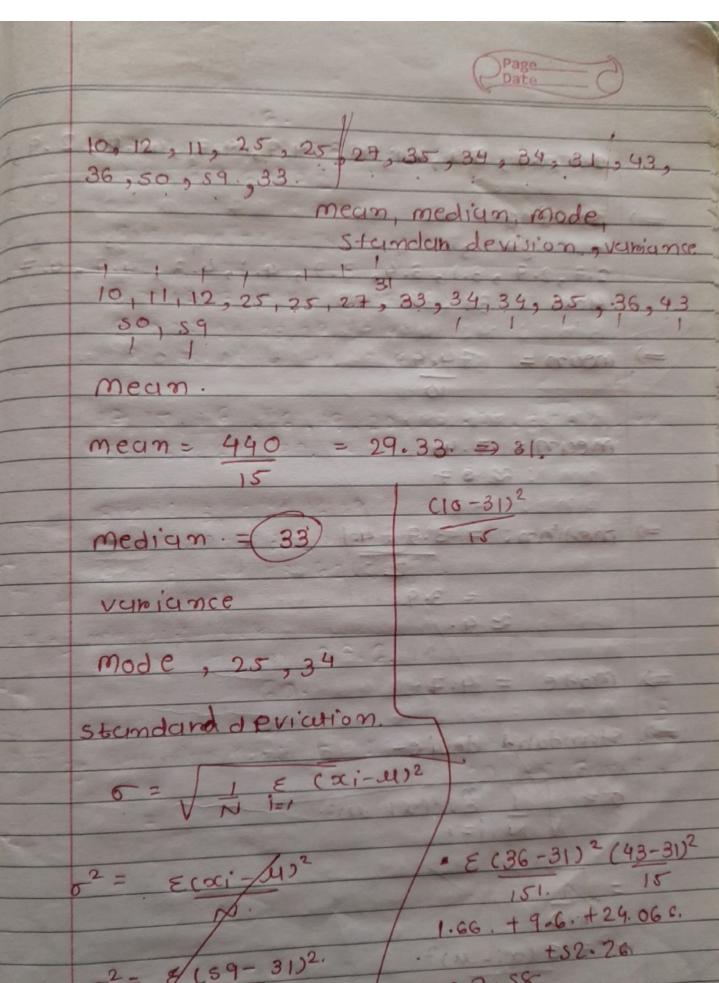
Bin1: 14.67 = 15

Bin2: 18.93 = 19Bin3: 29 = 29Bin4: 46. = 46Bin5: 67.67. = 68

to Bin by boundaries.

Bin 1: 13, 16, Bin 2: 16, 20, Bin 3: 23, 35, Bin 4: 41, 41, Bin 5: 62, 72, at bin by median:

Bin 1: 15, 15, 15 Bin 2: 19, 19, 19 Bin 3: 29, 29, 29 Bin 4: 44, 44, 44 Bin 5: 69, 69, 69

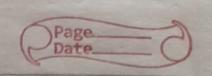


62 = \$(59-31)2.

= 87.58 ts2.26

```
2.7, 3.1, 3.4, 4.1, 4.3, 4.7, 4.7, 40.8, 2.9,3.1
 =) sonting
     2.7, 2.9, 3.1, 3.4, 3.7, 4.1, 4.3, 4.7, 4.7,
 =) mean = 74,4
     mean = 7.49
 =) median = 3.7 +4.1
              = 3.9.
=). Mode = 4.7.
=> Styndard devis-
   \sigma = \sqrt{\frac{2}{N}} \frac{2}{i^2} (xi - u)^2
   \sigma^2 = \mathcal{E}(\alpha_i - u)^2
   = (2.7 - 7.5^2 + (2.9 - 7.5^2 + (3.1 - 7.5^2 + (3.4 - 7.5^2)^2)
      + (3.7-7)2+ (4.1-7)2+(4.3-7)2+(4.7-7)2
```

(4.7-7)2+(40.8-7)2 3-7 = 18.49 + 16.81. + 15.21. 112.96 + 22.09 + 20.61 + 18 - 83 + 16.32. + 13.98 8.41 + 11.15 + 9.85 + 7.50 7G 0=11.14. +7.5076+1112.88 52= 124.1144. 44,50,38,96,42,47,40,39,46,50. 38, 39, 40, 42, 44, 46, 50, 50, 96 125.44. +104.04 + 84.64. +51.84 mediam: -44+46 = 45 27.04+ 10.24. 0.64 + 2190.24 10. mode :- 50. 2599.6 Styndard devis-259,96 5 = 16.12 (44-49.2)2 165 (38-49.2)2+(39-49.2)2+(40-49.2)2+(42-49.2)2 + (44-49.2)2+ (46-49.2)2+ (49-49.2)2 +(50-49,2)2+(50-49,2)2+(96-49,2)2



44,50,38, 96, 42, 47, 40,39,46,50 bin size=3 38,39,40,42,44,46,47,50,50,96. Bin 1:4

Bin 1: 38,39,40

Bin 2: 42,44,46

Bin 3: 50,96,47,50,50-,96

Bin by mean.

Bin 1: 39 Bin 2: 49

Bin3: 139 243 = 81 243 = 60.75

Bin by boyndanies.

Bin 1: 38,40,40.

Bin 2: 42,46,46.

Bin 3; 47,47,96.

Bin by medium.

Bin 2: 44,44,45.
Bin 3: 50,50,50,50

Bin 1: 38, 39, 40, 42 Bin2: 44, 46, 47,50 Bin3: 50,96.

Bin by mean

Bin 1: 39.75 % 40 2: 46.75 % 49 3: 365 % 8:

Bin by boundanies.

Bin 1: 38, 38, 38, 42 Bin 2: 44, 44, 45,50 Bin 3: 50,96, 50

Bin by median

Bin 1: 39.5 Bin 2: 46.5 Bin 3: 73.,73