

Statistics

Lecture 4



Feb 19-8:47 AM

I randomly selected 25 students, display below are for their ages.

STEM Plot ← Data is Sorted

1	89
2	04458
3	0255579
4	02225889
5	002

1) $n = 25$

2) Range = $52 - 18 = 34$ (Max - Min)

3) Midrange = $\frac{52 + 18}{2} = 35$ (Max + Min)

4) Mode 35 & 42 Bimodal

5) Find class width for a freq. table with 4 classes.

$\frac{\text{Range}}{4} = \frac{34}{4} = 8.5$

IF decimal ⇒ Round-up
 IF whole ⇒ +1

CW = 9

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(cw=9)

Class limits	class BNDs	class MP	class F	Cum. F	Rel. F	% F
18 - 26	17.5 - 26.5	22	6	6	.24	24%
27 - 35	26.5 - 35.5	31	6	12	.24	24%
36 - 44	35.5 - 44.5	40	6	18	.24	24%
45 - 53	44.5 - 53.5	49	7	25	.28	28%

$$\text{class MP} = \frac{\text{+ class limits}}{2}$$

$$\text{Rel. F} = \frac{F}{n} \quad n=25$$

Freq. Polygon
 - class MP
 - class F
 - additional MP one on each side
 - start & finish @ 0 level

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Pie chart

- Circle
- class MP to name
- % F for each slice
- Size of slices

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Complete the chart below:



class limits	class BNDRS	class M/P	class F	Cum. F	Rel. F	% F
4 - 10	3.5 - 10.5	7	5	5	.125	12.5%
11 - 17	10.5 - 17.5	14	10	15	.250	25.0%
18 - 24	17.5 - 24.5	21	18	33	.450	45.0%
25 - 31	24.5 - 31.5	28	7	40	.175	17.5%

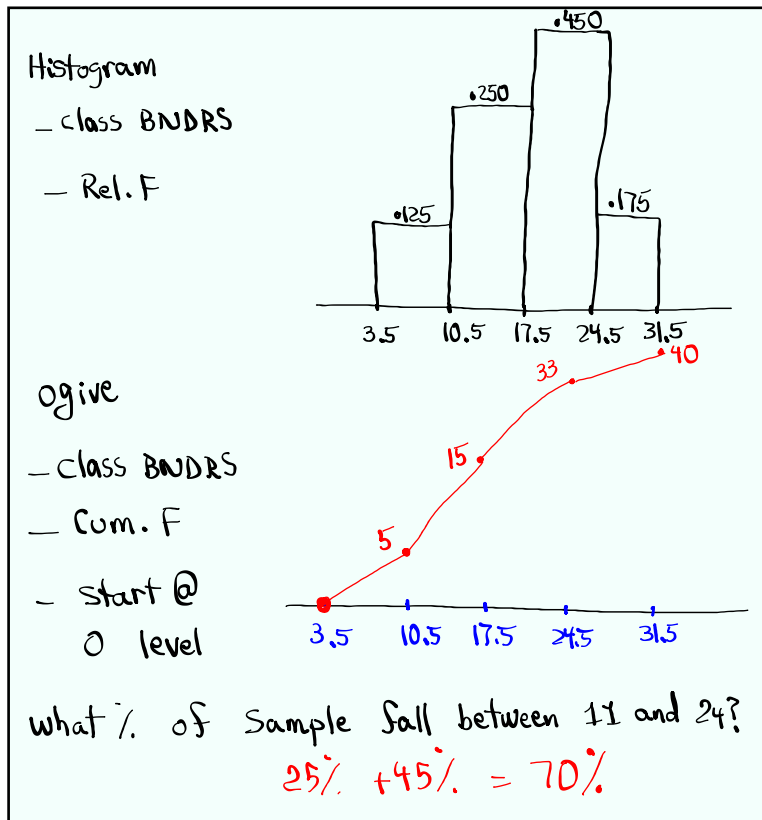
1) How many classes? 4

2) class width? 7

3) Sample Size $n = 40$

$$\text{Rel. F} = \frac{F}{n} = \frac{F}{40}$$

Aug 29-9:08 AM



Aug 29-9:24 AM