

# First Homework of 101 Stat

1)

- i) Number of children in 3 families.
- ii) The height of 20 men.
- iii) The month of birth of 30 women, and color of eyes.
- iv) Temperature inside classroom.

2)

- i) Quantitative
- ii) Qualitative Quantitative
- iii) Qualitative
- iv) Qualitative
- v) Quantitative
- vi) Qualitative Qualitative

3)

- i) Continuous.
- ii) discrete.
- iii) discrete.
- iv) continuous.
- v) continuous.

4) a.

b.

c. 30%

Categories	frequency	R f	P f
A	4	0.133	13%
B	9	0.3	30%
C	17	0.566	57%
total	30	1	100%

4) d.

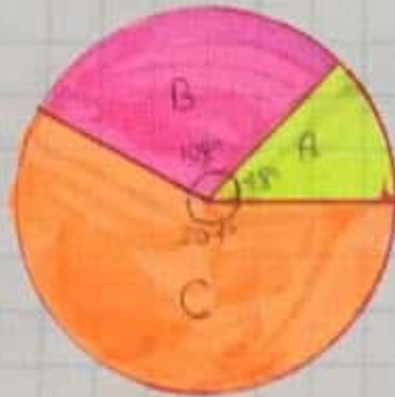
Bis Chart:

$RF(360) = \text{Angle}$

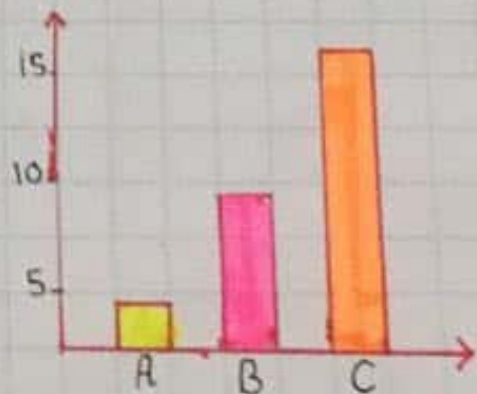
$A: 0.133(360) = 48^\circ$

$B: 0.3(360) = 108^\circ$

$C: 0.566(360) = 204^\circ$



Bar chart:



5) a. Steps:

1)  $\text{max} = 17, \text{min} = 1$

2)  $R = 17 - 1 = 16$

3)  $k = \lceil 3.322 \log 40 \rceil = 5$

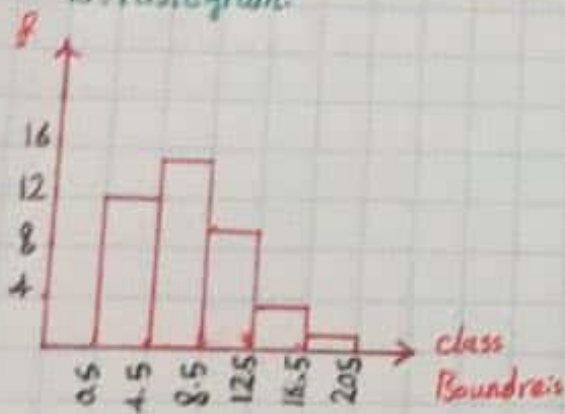
4)  $c = \frac{R}{k} = \frac{16}{5} = 4$

$c - 1 = 4 - 1 = 3$

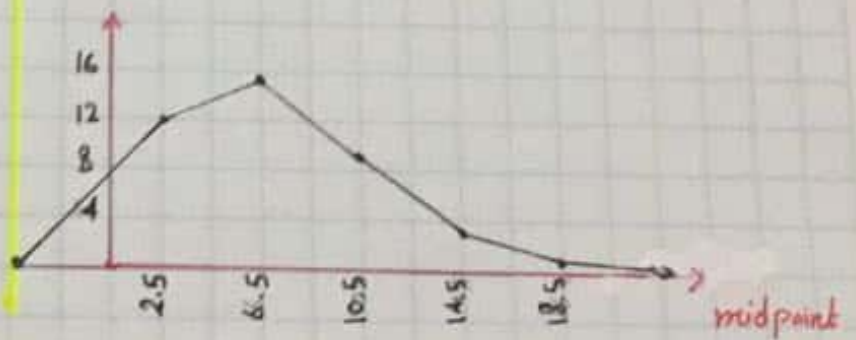
then make a table ↓

Class limit	Class Boundaries	Class midpoint	f	Rf	ACf
1 - 4	0.5 → 4.5	2.5	12	0.3	12
5 - 8	4.5 → 8.5	6.5	15	0.375	27
9 - 12	8.5 → 12.5	10.5	9	0.225	36
13 - 16	12.5 → 16.5	14.5	3	0.075	39
17 - 20	16.5 → 20.5	18.5	1	0.025	40
<b>Total</b>			<b>40</b>	<b>1</b>	

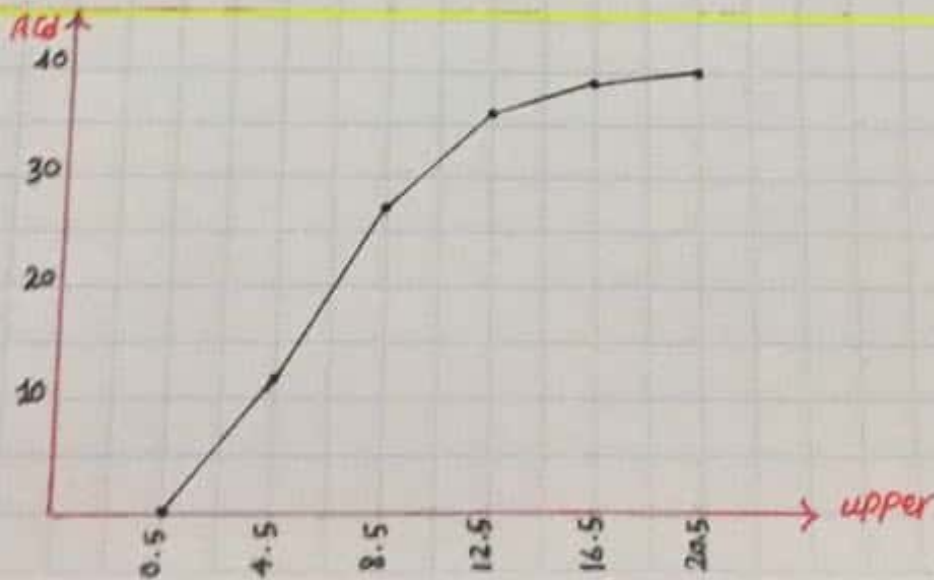
b. Histogram.



Polygon.

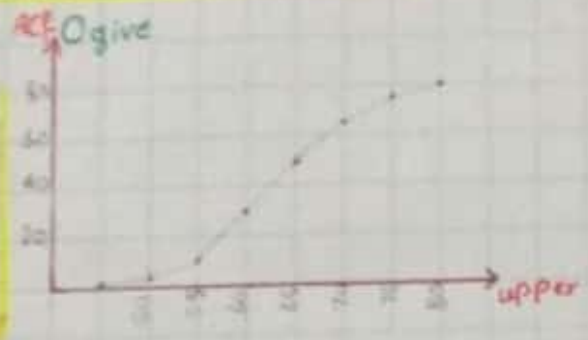
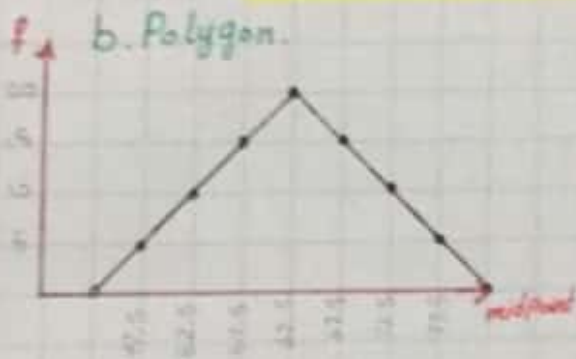


Ogive.



6) a.

Class Boundaries	Class Midpoint	f	Rf	ACF
45 → 50	47.5	5	0.063	5
50 → 55	52.5	10	0.125	15
55 → 60	57.5	15	0.19	30
60 → 65	62.5	20	0.25	50
65 → 70	67.5	15	0.19	65
70 → 75	72.5	10	0.125	75
75 → 80	77.5	5	0.063	80
<b>Total</b>		<b>80</b>	<b>1</b>	



7) a.

Class Boundaries	Class Midpoint	f	Rf	ACF
5 → 10	7.5	5	0.125	5
10 → 15	12.5	15	0.375	20
15 → 20	17.5	5	0.125	25
20 → 25	22.5	10	0.25	35
25 → 30	27.5	5	0.125	40
<b>Total</b>		<b>40</b>	<b>1</b>	

