

First Homework for 101 Stat.

Pay attention:

- The homework is delivered between 14-24 February 2021, and any homework that arrives after that date is not accepted.
- The answers are must written on these pages.

1) Give an example for each of the following:

i) Qualitative discrete variable.

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ii) Qualitative continuous variable.

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iii) Quantitative discrete variable.

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iv) Quantitative continuous variable.

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2) Classify each of the following variables as qualitative or quantitative.

- i) The variable that recording temperatures inside the oven.
- ii) The variable that recording the ID of students.
- iii) The variable that recording colors of the rainbow.
- iv) The variable that recording sizes of refrigerators.
- v) The variable that recording types of flowers.
- vi) The variable that recording lengths of rods in the countries.

3) Classify each variable as discrete or continuous:

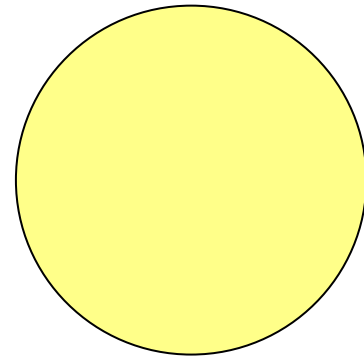
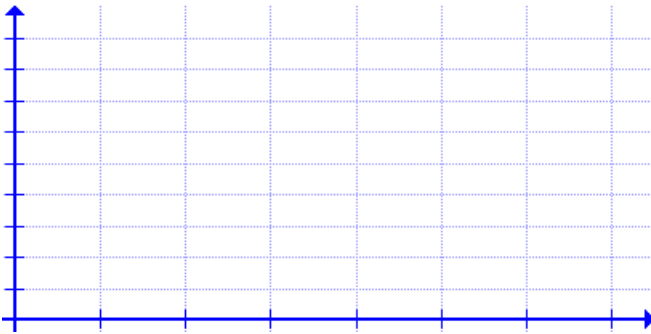
- i) The variable that recording numbers of people in countries.
- ii) The variable that recording lifetimes of lamps in offices of CFY.
- iii) The variable that measure all spectrum colors by the analysis of white light.
- iv) The variable that recording types of blood groups of students in KSU.
- v) The variable that recording type of flowers in gardens.
- vi) The variable that recording weights of vegetable boxes in a market.

4) The following data give the blood groups of 40 people.

AB	O	AB	A	O	B	AB	A	O	A
A	A	A	O	B	O	A	B	B	A
O	B	O	B	AB	A	B	A	O	A
A	B	AB	O	B	O	B	A	AB	A

- i) Prepare a frequency table of this data contains frequencies, relative frequencies and percentages.

- ii) Draw the bar chart and pie chart of this data.

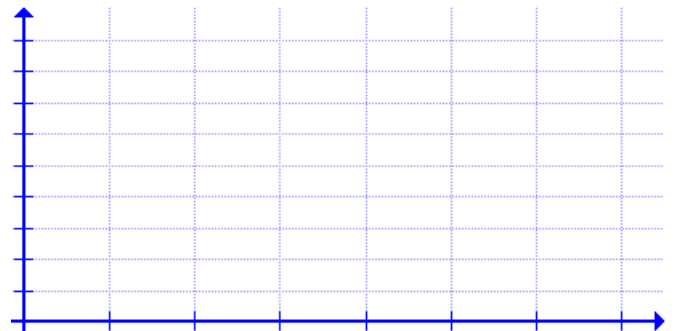
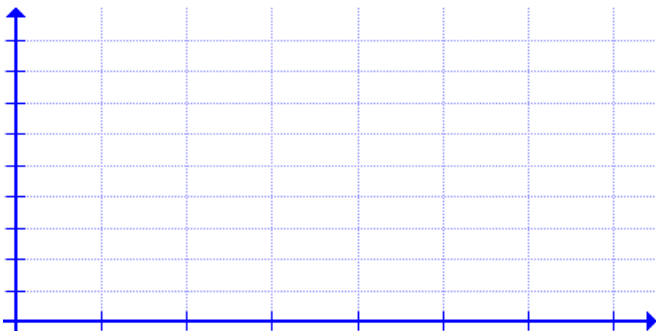


- iii) What is the mode of this data?
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5) Consider the following frequency distribution table:

Class Limit	Class Boundaries	Midpoint	Frequency	Relative Frequency	Percentage Frequency	ACF
			6			
	6.5 → 11.5			0.24		
		14			18 %	
						42
22 – 26						50
Sum						

- i) Complete the above frequency distribution table.
- ii) Draw the histogram and ACFP.



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vi) Check if the given data have extreme values.

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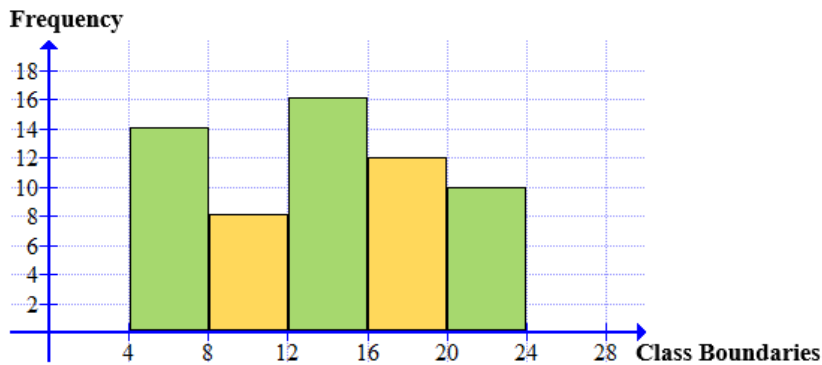
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vii) Calculate the Pearson coefficient of skewness.

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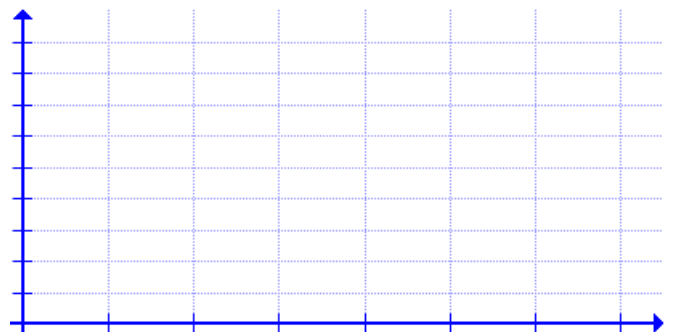
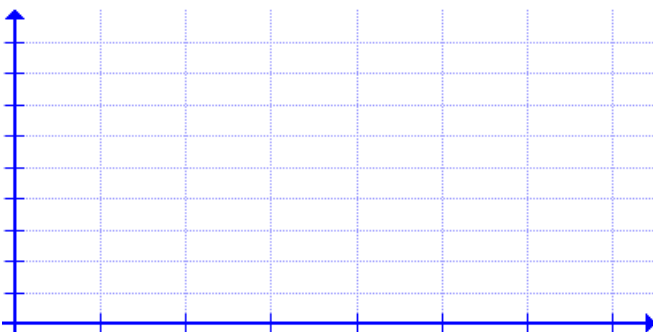
7) Consider data (grouped data) given by the following histogram:



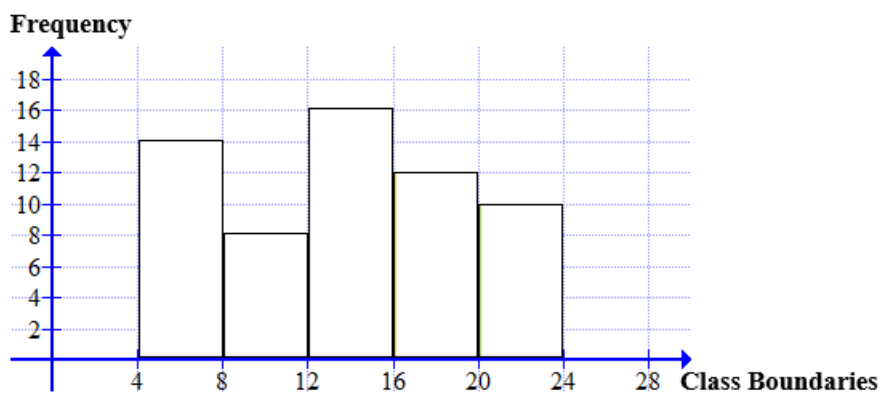
i) Prepare the frequency distribution table for the given histogram.

Class Limit	Class Boundaries	Midpoint	Frequency	Relative Frequency	Percentage Frequency	ACF	DCF

ii) Draw the polygon and descending cumulative frequency polygon.



iii) Determine the value of mode graphically.



End of questions