INSTRUCTIONS:

1. Get the results of the Top 10 LET Passers in the Philippines for the last 5 years (2018-2023) including the schools they graduated from and their ratings (both Elementary and Secondary lists).
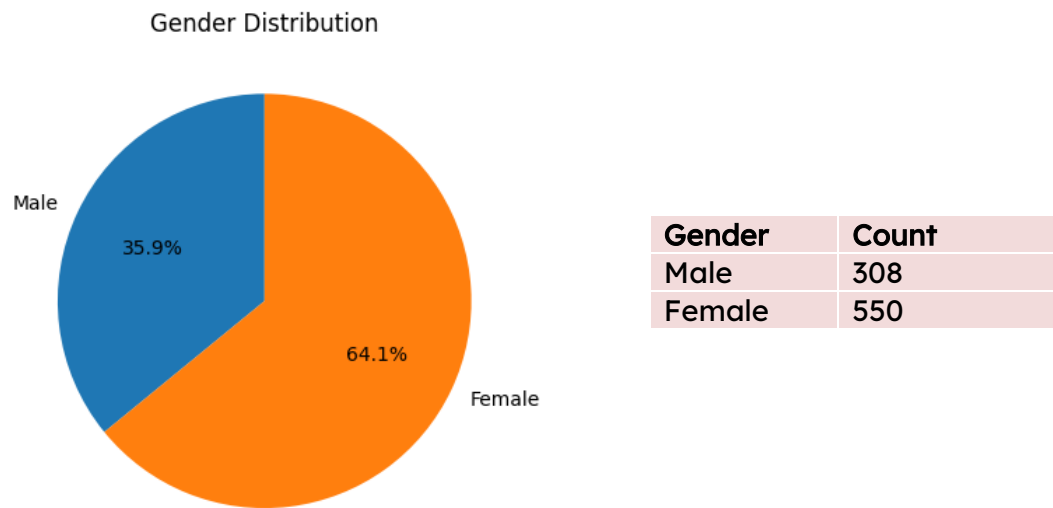
   Link to Work Sheet: https://tinyurl.com/LET2018-23Top10

2. Determine the following:

   a. Best schools by determining the frequency of being included in the top 10

Rank	University	Frequency
1	UNIVERSITY OF MINDANAO-DAVAO CITY	50
2	UNIVERSITY OF SOUTHEASTERN PHILIPPINES-TAGUM	43
3	UNIVERSITY OF SOUTHEASTERN PHILIPPINES-DAVAO CITY	35
4	MINDANAO STATE UNIVERSITY-GENERAL SANTOS CITY	28
5	UNIVERSITY OF MINDANAO-TAGUM	24
6	UNIVERSITY OF THE PHILIPPINES- DILIMAN	23
7	CEBU NORMAL UNIVERSITY (CEBU STATE COLLEGE)	19
8	UNIVERSITY OF MINDANAO-DIGOS COLLEGE	17
9	COR JESU COLLEGE (HOLY CROSS OF DIGOS)	13
9	DAVAO ORIENTAL STATE COLLEGE OF SCIENCE & TECHNOLOGY	13
10	HOLY CROSS OF DAVAO COLLEGE	11

b. Gender of the top 10 passers

Gender Distribution

Gender	Count
Male	308
Female	550

c. Highest passing ratings for 5 years

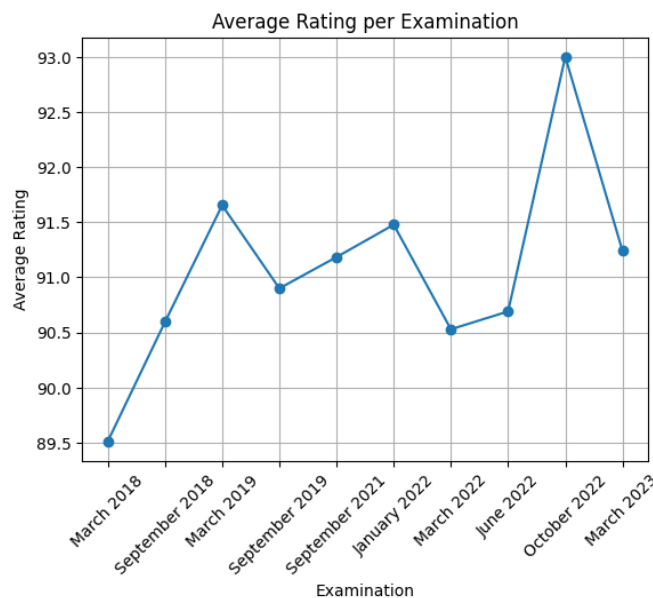| Lowest passing ratings for 5 years: 94.6			
Rank	Name	School	Rating
1	BABY PATRICIA TABAMO BENSI	CEBU NORMAL UNIVERSITY (CEBU STATE COLLEGE)	94.6
1	MA. CATHERINE CAUBA	CEBU NORMAL UNIVERSITY (CEBU STATE COLLEGE)	94.6
1	JESSIREE FLORES PANTILGAN	UNIVERSITY OF MINDANAO - PANABO	94.6

d. Lowest passing ratings for 5 years

Highest passing ratings for 5 years: 86.6			
Rank	Name	School	Rating
10	SHEILA MARIE SUMATRAÂ Â CASAS	UNIVERSITY OF SOUTHEASTERN PHILIPPINES-TAGUM	86.6
10	PAVIA DENISE MONTEJOÂ Â DELGADO	DE LA SALLE UNIVERSITY-MANILA	86.6
10	JESSA ESTRERAÂ Â YAUN	UNIVERSITY OF MINDANAO-PENAPLATA	86.6

e. Average passing ratings
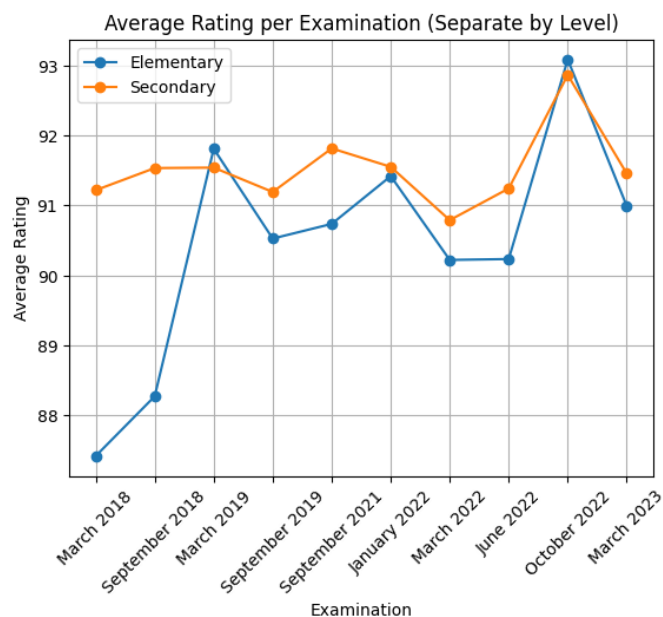
= (78433.8/858) = **91.41**

f. Mode of the passing ratings of the top 10 from 2018 to 2023.

= **91.4**

g. Other related analysis or trends/patterns that could be discovered from the 5 years performance of the top 10 schools/candidates of the LET.

The line graph below allows us to understand the overall trend of the average ratings over time. By examining the graph, one could potentially observe patterns, such as whether the ratings consistently increased or decreased over the years, or if there were any significant fluctuations or spikes in certain periods.

The line graph shows that October 2022 achieved the highest average rating, while March 2018 attained the lowest average rating. This means that in October 2022, the performance of students, as reflected in their examination ratings, reached its peak. Conversely, in March 2018, the average rating was at its lowest point during the observed

To determine the difference between each level, this line graph displays the average ratings for each level of examination. It reveals notable differences in the ratings between the March 2018 results. Specifically, the secondary level has a higher average rating, while the elementary level has a lower average rating. However, from March 2019 to March 2023, there are no noticeable variations in the average ratings across different levels.
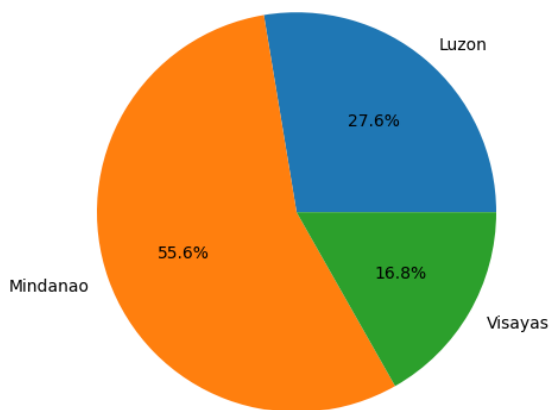
To perform a useful analysis, I extracted all the data from Item 2a, which lists the best schools based on their frequency of being included in the top 10. To enhance the data, I applied feature engineering by adding two additional columns: Island, Region, and Type.
(See the complete data here: https://tinyurl.com/LETUniversityList)

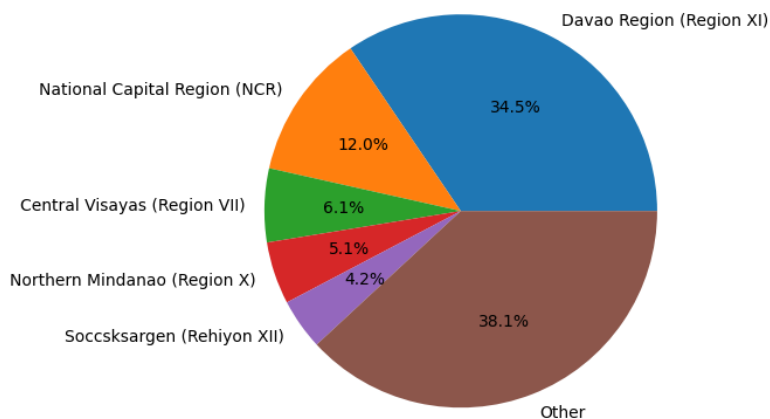| Rank	School	Frequency	Island	Region	Type
1	UNIVERSITY OF MINDANAO-DAVAO CITY	50	Mindanao	Davao Region (Region XI)	Private
2	UNIVERSITY OF SOUTHEASTERN PHILIPPINES-TAGUM	43	Mindanao	Davao Region (Region XI)	Public
3	UNIVERSITY OF SOUTHEASTERN PHILIPPINES-DAVAO CITY	35	Mindanao	Davao Region (Region XI)	Public
4	MINDANAO STATE UNIVERSITY-GENERAL SANTOS CITY	28	Mindanao	Soccsksargen (Rehiyon XII)	Public
5	UNIVERSITY OF MINDANAO-TAGUM	24	Mindanao	Davao Region (Region XI)	Private
6	UNIVERSITY OF THE PHILIPPINES-DILIMAN	23	Luzon	National Capital Region (NCR)	Public
7	CEBU NORMAL UNIVERSITY (CEBU STATE COLLEGE)	19	Visayas	Central Visayas (Region VII)	Public
8	UNIVERSITY OF MINDANAO-DIGOS COLLEGE	17	Mindanao	Davao Region (Region XI)	Private
9	COR JESU COLLEGE (HOLY CROSS OF DIGOS)	13	Mindanao	Davao Region (Region XI)	Private
9	DAVAO ORIENTAL STATE COLLEGE OF SCIENCE & TECHNOLOGY	13	Mindanao	Davao Region (Region XI)	Public
10	HOLY CROSS OF DAVAO COLLEGE	11	Mindanao	Davao Region (Region XI)	Private
...	...	...	...	...	...
19	ZAMOBANGA STATE COLLEGE OF MARINE SCIENCES & TECH.	1	Mindanao	Zamboanga Peninsula (Region IX)	Public

Using the data, these are the insights I get:

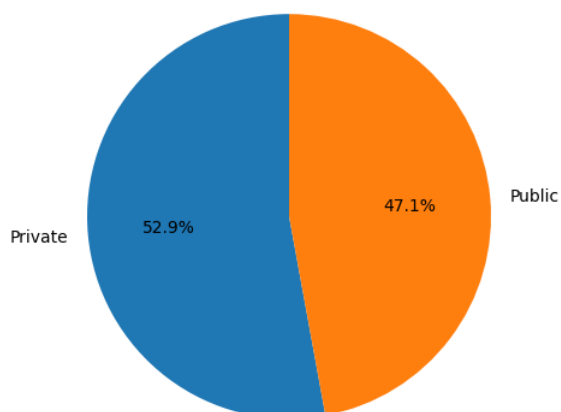### Distribution of Frequency by Part

The chart indicates that out of the three islands in the Philippines, Mindanao has the highest frequency, accounting for 55.6% of the population. Luzon follows with 27.6%, and Visayas comes in third with 16.8%.

Distribution of Frequency by Region

When we break down the results by region, we find that the Davao Region has the highest frequency of being included in the top 10 passers, with 34.5%. The National Capital Region (NCR) comes next with a frequency of 12%.

Distribution of Private and Public Schools

The chart illustrates the distribution of schools based on their type. Private schools accounted for a higher percentage, representing 52.9% of the total, while public schools comprised 47.1%. The difference between the two is not significant, suggesting comparable representation among the top performers in the LET. Further analysis is needed to evaluate additional factors such as the overall performance and quality of education provided by each school type to make a more comprehensive assessment.

Type	Count
Public	139
Private	156

Note: The information provided above is based solely on the available data and does not allow for a conclusive determination of the best schools for teachers. To accurately assess the best school type or region for the LET, it is essential to consider additional factors. These may include the average performance or passing rates of students from private and public schools, the quality of education provided by each school type, and other relevant metrics. A comprehensive analysis would require a thorough examination of various factors and data pertaining to the schools' performance in the LET to make a well-informed assessment.

3. Include the 2 main types of descriptive statistics in your analysis:
   • Measures of Central Tendency (Mean, Median, and Mode)
      Mean Rating: **91.41469**
      Median Rating: **91.4**
      Mode Rating: **91.4**
   • Measures of Dispersion or Variation (Variance, Standard Deviation, Range)
      Variance Rating: **1.87241**
      Standard Deviation Rating: **1.36836**
      Range Rating: **8.0**

Measures of Central Tendency per Level		
Level	Elementary	Secondary
Mean Rating	91.18	91.64
Median Rating	91.0	91.4
Mode Rating	90.8	91.0

Measures of Dispersion per Level		
Level	Elementary	Secondary
Variance Rating	2.93	0.74
Standard Deviation Rating	1.71	0.86
Range Rating	8.0	4.8

Variance measures the average squared deviation of ratings from the mean. A higher variance indicates a wider spread of ratings.
Standard Deviation the square root of the variance and provides a measure of the dispersion of ratings. A higher standard deviation indicates a greater spread of ratings.
Range represents the difference between the highest and lowest ratings in the dataset.