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1731833

INFO 4313

1. What are different types of variables?

Different types of variables are as follows:

Ordinal: An ordinal variable is one whose values are determined by the order in which the various categories are arranged.

Interval: The interval variable is a measuring variable that is used to specify values measured along a scale with each point spaced evenly apart. It is an extension of the ordinal variable and is one of the two types of numerical variables.

Ration: The interval variable is the second form of continuous variable, while the ratio variable is the first. It is the apex of the measurement variable kinds and an extension of the interval variable.

Categorical (Nominal): A categorical variable is a property that cannot be quantified. Categorical variables can be nominal or ordinal in nature.

2. What is the difference between Qualitative and Quantitative data?

Qualitative data: Qualitative data is a method in which the characteristics, attributes, properties, qualities etc. of a phenomenon or thing is described. It is the description of data in a language rather than in number.

Quantitative data: Quantitative data collection is a method in which data can be numerically counted or expressed is collected. The data is useful for experiments, manipulated analysis etc.

Qualitative data	Quantitative data
Non-statistical	Statistical
Unstructured	Structured
Semi- structured	

3. What are different methods of center measurement?

There are three different methods of center measurement as follows:

Mean: The mean is the arithmetic average, and it's arguably the most recognizable metric of central tendency. It's very easy to figure out what the mean is. Simply sum up all the values in dataset and divide by the number of observations. For example, (4,7,11,15,17) = 4+7+11+15+17/5 = 54/5 = 10.8 We can say, the mean is 10.8.

Median: The median is the value in the middle. It's the number that divides the data in half. Order the data from smallest to largest, then select the data point with an equal number of values above and below it to obtain the median. For example, (17,4,15,7,11) = (4,7,**11**,15,17) = The median is 11.

Mode: The value that is observed most frequently. The mode is undefined for sequences in which no observation is repeated. For example, (5,5,5,4,4,3,2,1,1) = The mode is 5 and (1,2,3,4,5) = There is no mode.

4. What are different methods of variability measurement?

Range: The difference between the highest and lowest values.

Variance: Average of squared distances from the mean.

Standard deviation: Average distance from the mean

Interquartile range: The range of the middle half of a distribution.

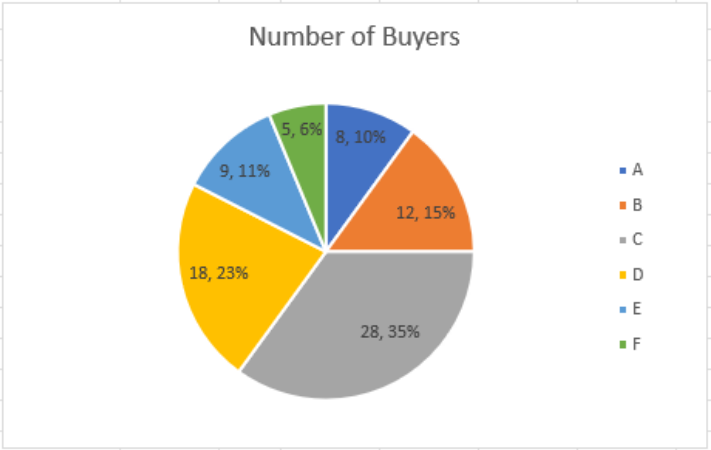
5.

Qualitative	Quantitative
Nominal	Interval
Ordinal	Ratio

Name of Measurement scales	Name of variables
Nominal	Full Name, Gender, Product Number
Ordinal	Level of satisfaction, Order date, Arrival Date
Interval	Sales amount,
Ratio	Profit per unit, Cost per unit

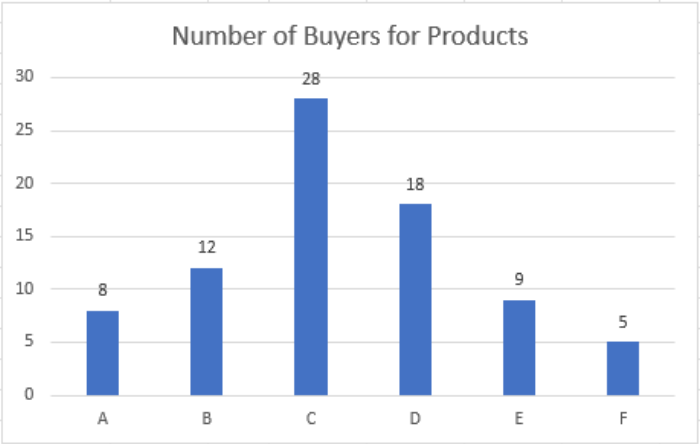
6.

Name of Products	Number of Buyers
A	8
B	12
C	28
D	18
E	9
F	5



Picture: Pie Chart

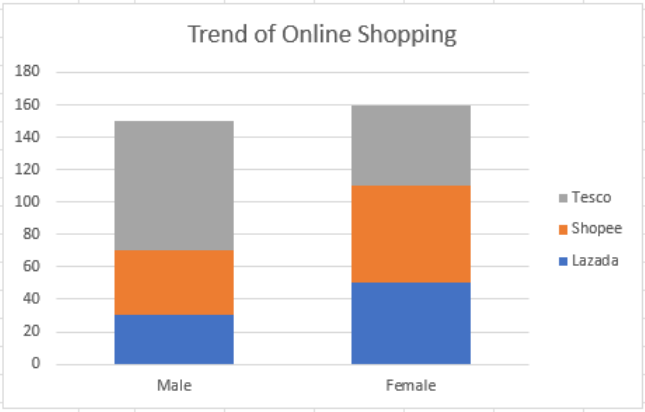
Name of Products	Number of Buyers
A	8
B	12
C	28
D	18
E	9
F	5



Picture: Bar Chart

7.

Column1	Lazada	Shopee	Tesco
Male	30	40	80
Female	50	60	50



Picture: Stack column chart

8)

RM		*RM*	
23			
45		Mean	29.42857143
13		Standard Error	7.86147067
67		Median	23
11		Mode	13
13		Standard Deviatior	20.79949633
34		Sample Variance	432.6190476
		Kurtosis	0.371299353
		Skewness	1.076525793
		Range	56
		Minimum	11
		Maximum	67
		Sum	206
		Count	7

9)a

Age	% Fat
23	9.5
23	26.5
27	7.8
27	17.8
39	31.4
41	25.9
47	27.4
49	27.2
50	31.2
52	34.6
54	42.5
54	28.8
56	33.4
57	30.2
58	34.1
58	32.9
60	41.2
61	35.7

	Age	*% Fat*
Age	1	0.82
% Fat	0.82	1

The correlation between age and % fat is .82; r= .82

9)b

Age and % fat are not correlated because the variables of age and % fat are somewhere increasing and somewhere decreasing.