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Week 1 - Exercise 1.2
DSC520 – Statistics for Data Science
Professor Chase Denton
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Task 3: What is the level of measurement of the following variables:

- a. The number of downloads of different brands' songs on iTunes.
Classification: Discrete, Ratio
Reasoning: The entire song needs to be downloaded for the count to make sense.
There may be a brand with zero downloads.
- b. The names of the brands that were downloaded.
Classification: Nominal
Reasoning: More than one brand exists but has no logical order.
- c. The position in the iTunes download charts.
Classification: Ordinal
Reasoning: A logical order exists within the chart.
- d. The money earned by the bands from the downloads.
Classification: Continuous, Ratio
Reasoning: Currency has a distinct value and can be broken down into smaller increments.
- e. The weight of drugs bought by the bands with their royalties.
Classification: Continuous, Ratio
Reasoning: Has a distinct value that can be broken down into smaller increments.
- f. The types of drugs bought by the bands with their royalties.
Classification: Categorical, Nominal
Reasoning: There are several different drugs, and their name has meaning.
- g. The phone numbers that the bands obtained because of their fame.
Classification: Categorical, Nominal
Reasoning: The band received phone numbers from multiple people.
- h. The gender of the people giving the bands their phone numbers.
Classification: Categorical, binary
Reasoning: Gender can be either male or female.
- i. The instruments played by the band members.
Classification: Categorical, Nominal
Reasoning: The instrument names have meaning.

- j. The time they had spent learning to play their instruments.
Classification: Continuous, Ratio
Reasoning: Time could be 0 or broken down into smaller increments.

Task 4: Measurement of error in the friend's CD-counting device is: 6

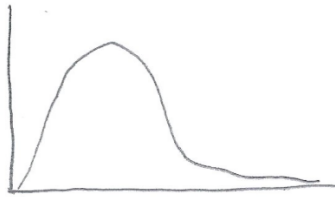
Showing work:
 $863 - 857 = 6$

Task 5:

Normal Distribution:



Positively Skewed Distribution"



Negatively Skewed Distribution:

