GitHub Repository URL: https://github.com/jcrudolp/hello-world

Discovering Statistics Using R – page 30 – Complete Tasks 3-5

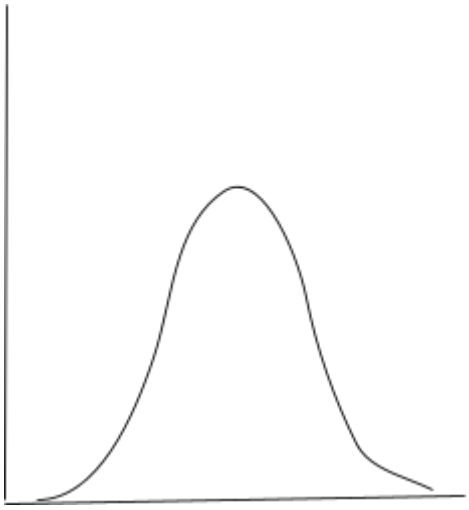
3. **What is the level of measurement of the following variables?**

a. The number of downloads of different bands' songs on iTunes.
    i. Discrete ratio variable
b. The names of the bands that were downloaded.
    i. Nominal variable
c. The position in the iTunes download chart
    i. Ordinal variable
d. The money earned by the bands from the downloads.
    i. Continuous, ratio variable
e. The weight of drugs bought by the bands with their royalties.
    i. Continuous, ratio variable
f. The type of drugs bought by the bands with their royalties.
    i. Categorical, nominal variable
g. The phone numbers that the bands obtained because of their fame.
    i. Categorical, nominal variable
h. The gender of the people giving the bands their phone numbers.
    i. Categorical, binary variable
i. The instruments played by the band members.
    i. Categorical, nominal variable
j. The time they had spent learning to play their instruments
    i. Continuous, ratio variable

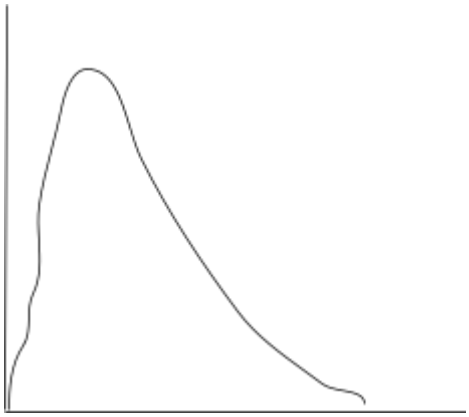
4. **Say I own 857 CDs. My friend has written a computer program that uses a webcam to scan the shelves in my house where I keep my CDs and measure how many I have. His program says that I have 863 CDs. Define measurement error. What is the measurement error in my friend's CD-counting device?**

Measurement error is when there is a discrepancy between the numbers we use to represent the thing we're measuring and the actual value of the thing we're measuring. The measurement error in this scenario is 6 CDs.

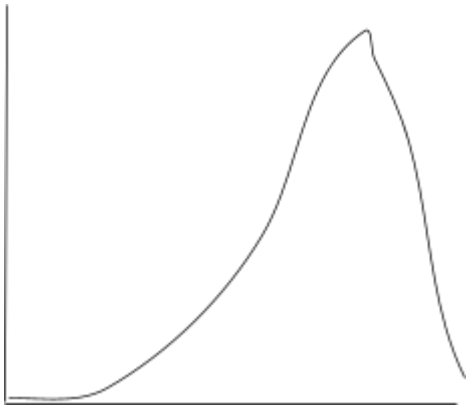
5. **Sketch the shape of a normal distribution, a positively skewed distribution, and a negatively skewed distribution.**



Normal Distribution



Positively Skewed Distribution



Negatively Skewed Distribution