Task 3

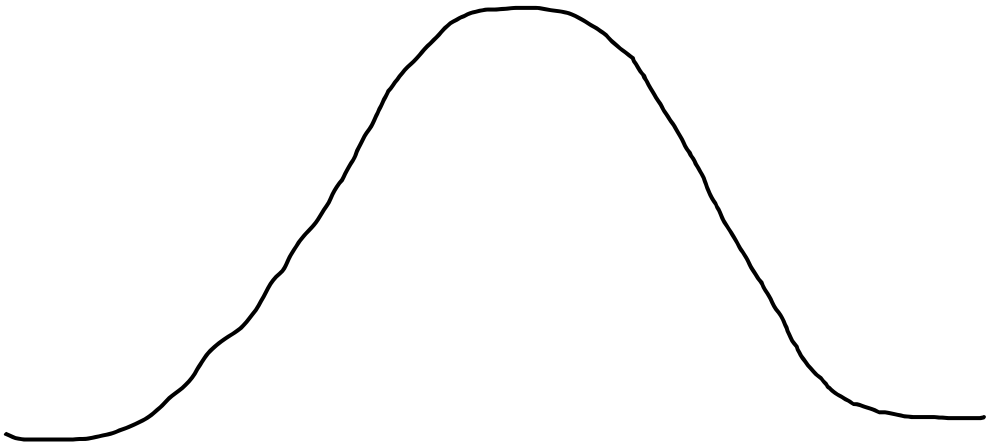
a. Discrete ratio measure because only whole songs can be downloaded and it is a ratio because there is a true value of 0 (no downloads at all)
b. Nominal value because the bands can be identified by name, but names have no meaningful order
c. Ordinal value. This value tells the magnitude of downloads, but doesn't list the total downloads there actually were of a song
d. The money earned from downloads is continuous and ratio since money can be broken down into smaller amounts even though there may not be an actual coin to represent fractions that it could be broken down to
e. The weight of the drugs bought by bands is continuous and ratio. This is because the amount of drugs can be compared for each member of the band
f. The type of drugs bought is categorical and nominal since the name of the drug can tell us something meaningful but has no meaningful order
g. The phone numbers obtained by bands from their fame is categorical and nominal since the phone numbers have no meaningful order, which may as well be letters. This is because a bigger phone number doesn't mean it was given by a better person
h. The gender of the people giving phone numbers is categorical and binary. The people giving out numbers can fall into one of two categories (male or female)
i. The number of instruments played by the band members is categorical and nominal since the instruments have no meaningful order but the instrument names tell something useful
j. The time spent learning to play the instruments is a continuous and ratio variable since the amount of time can be split into indefinitely smaller divisions and there is a true zero meaning that some instruments weren't learned at all

Task 4

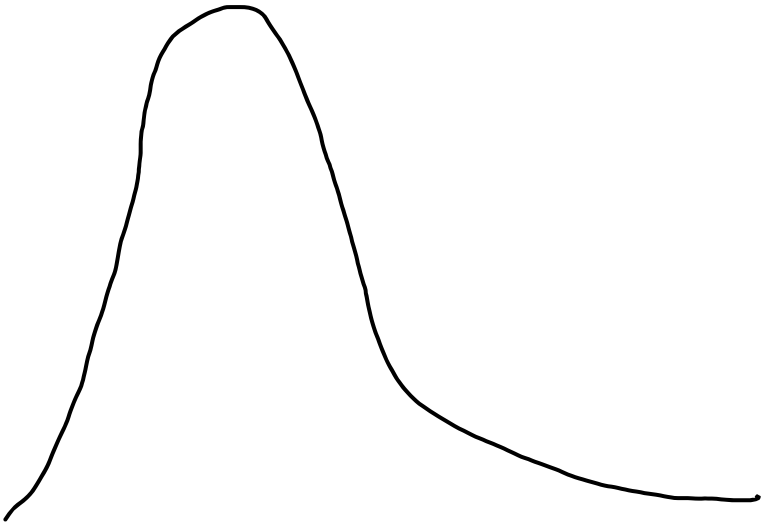
a. Measurement error is the difference between the true value of something and the numbers used to represent that value. The measurement error in this trial is 6 CDs since we know the true value of what is being measured. Typically this information isn't available, so the error is estimated rather than knowing the actual value.

Task 5

a. Normal Distribution:



b. Positively skewed Distribution:



c. Negatively skewed Distribution: