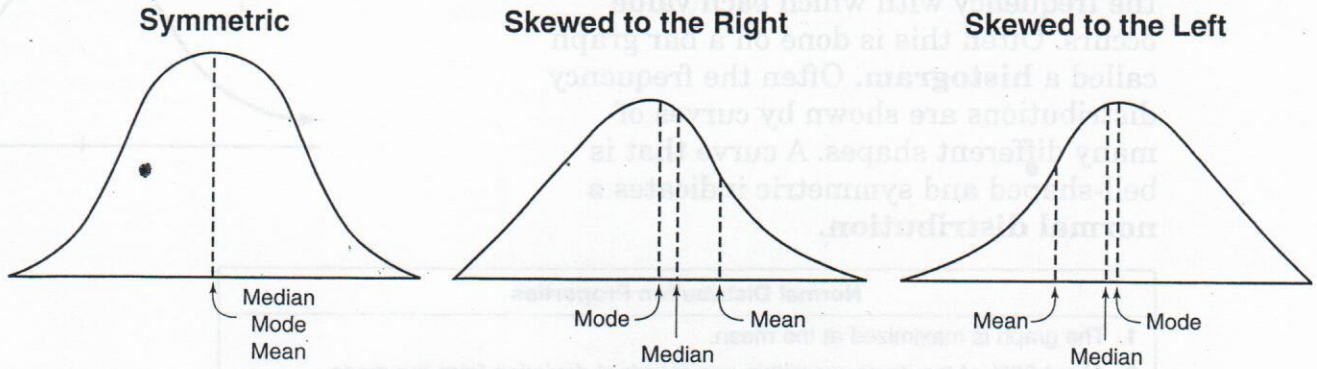




## Shapes of Distribution Curves

Graphs of frequency distributions can be described as either symmetric or skewed.

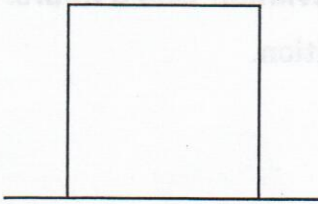


In a distribution skewed to the right, there are a larger number of high values. The long “tail” extends to the right.

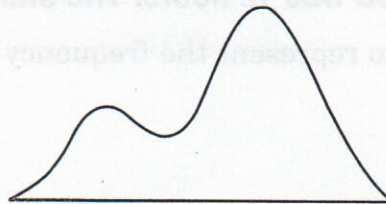
In a distribution skewed to the left, there are a larger number of low values. The “tail” extends to the left.

**For each of the following, state whether the distribution is symmetric or skewed. If it is skewed, tell whether it is skewed to the right or to the left.**

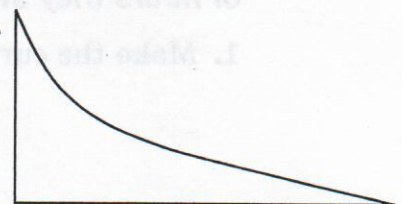
1.



2.



3.



**A bottle of fruit punch must contain at least 16 fluid ounces. The machine that fills the bottles is set so that the mean volume is 16.4 fluid ounces. The volumes in the bottles are normally distributed.**

4. What percent of the bottles are underfilled if the standard deviation is 0.2 fluid ounces?
5. What percent of the bottles are underfilled if the standard deviation is 0.4 fluid ounces?
6. If the standard deviation is 0.2 fluid ounces, find the mean volume that will ensure only 0.5% of the bottles will be underfilled.