

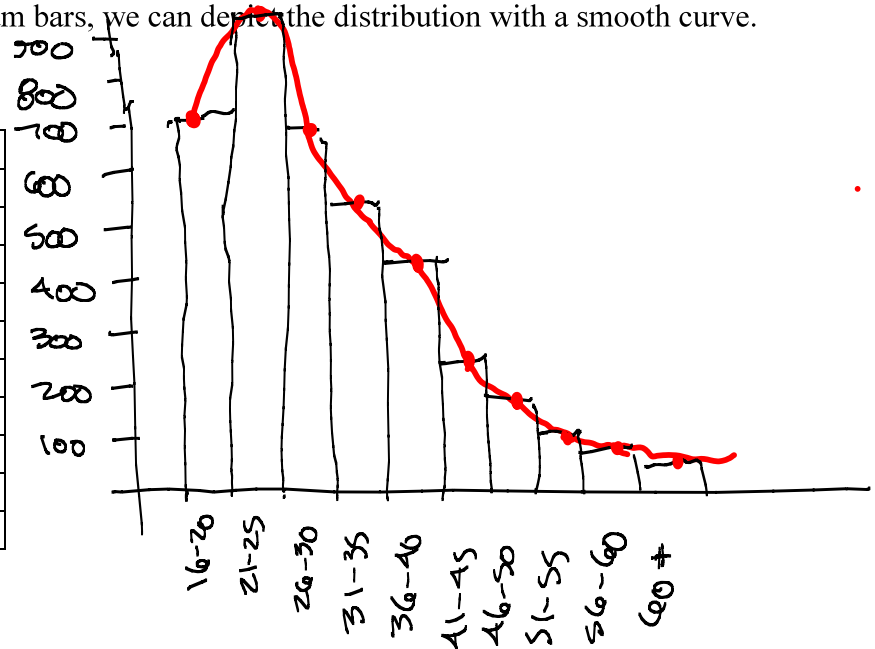
2.4: Distribution Shapes

The distribution of a data set is a description of the values of a variable. A graphical representation makes it easier to see what values of the variable occur most frequently.

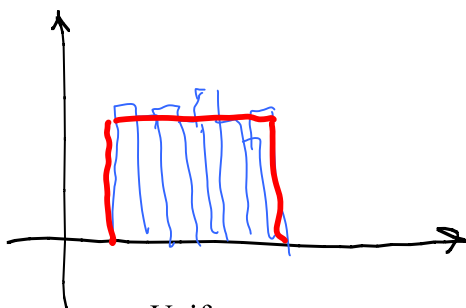
If we connect the tops of the histogram bars, we can depict the distribution with a smooth curve.

Example 1:

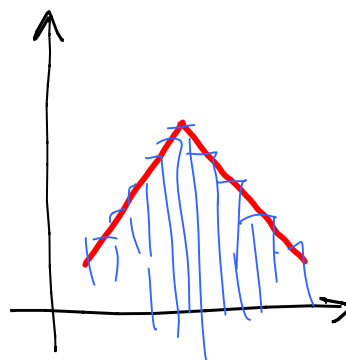
Age	Frequency
16-20	702
21-25	925
26-30	642
31-35	525
36-40	397
41-45	219
46-50	181
51-55	102
56-60	81
61+	50



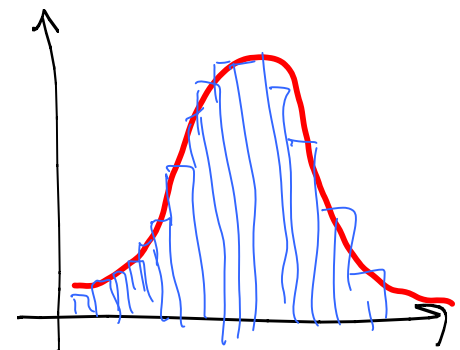
Shape:



Uniform

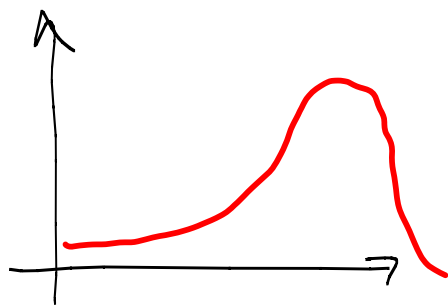


Triangular

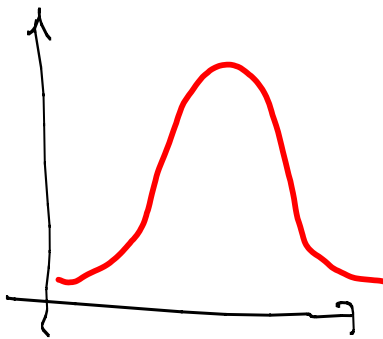


Bell-shaped

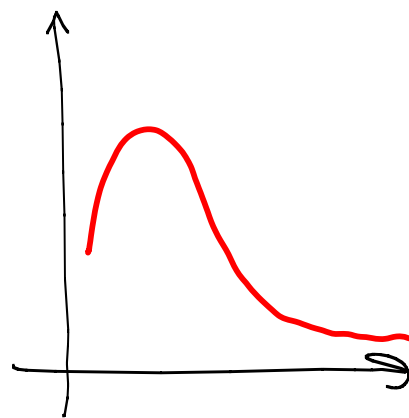
Note: These distributions are all symmetric

Skewness:

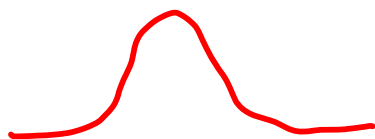
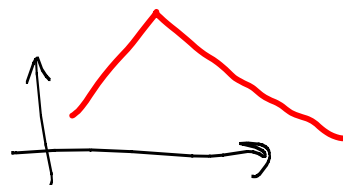
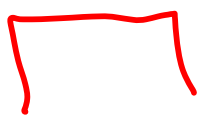
Left skewed



Not skewed

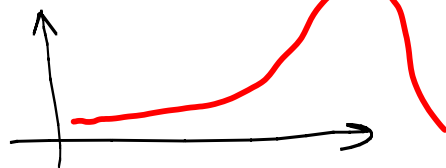
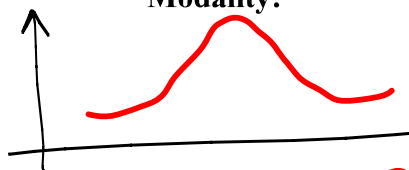


Right skewed

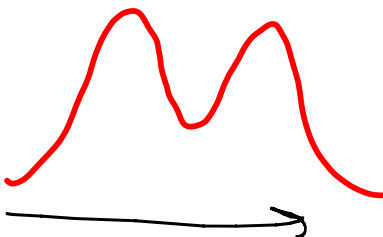
Symmetry:

symmetric

Not symmetric

Modality:

Unimodal



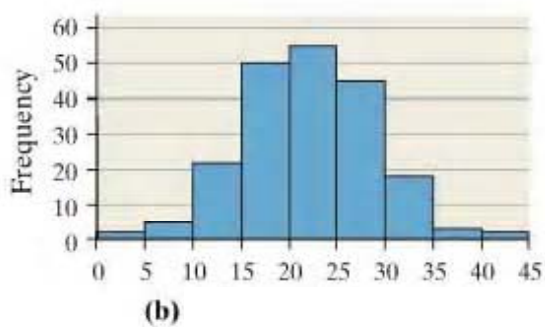
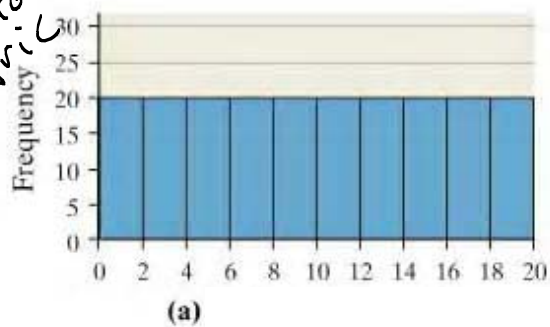
Bimodal



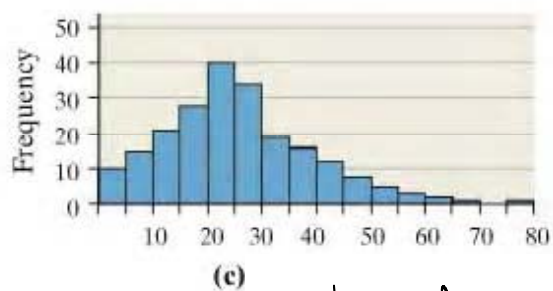
Multimodal

Example 2:

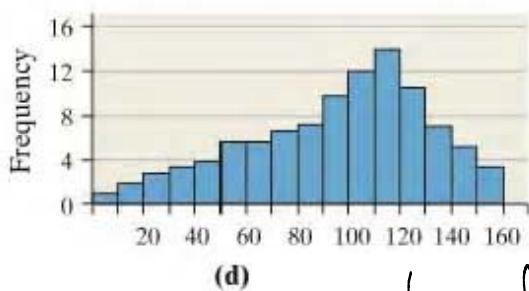
uniform
symmetric



bell-shaped
(symmetric)



right-skewed



left-skewed