

**DATA TYPES**

**Quantitative (numerical)**

- (1) Discrete (Whole #) 0,1,2,3  
-> Counting Process
- (2) Continuous (measurement)  
-> Can be decimal

Interval	Ratio
Arbitrary reference point -> does Not mean nothing (i.e. 0 Degrees = Freezing Point) -> Only with +/- with meaningful results	0 means absence of characteristic (i.e. # of textbooks bought = 0)

**Qualitative (categorical)**

- (1) Nominal  
-> No particular order
- (2) Ordinal  
-> Logical ordering (ranking)

**FREQUENCY DISTRIBUTION**

- (1) 5-10 Classes  
Find est. Class Width  
 $\frac{\text{Max} - \text{Min}}{5}$

- (2) Pick 2 Nice Numbers  
1  
2  
2.5  
5

- (3) Use each CW to construct the boundaries  
->Rule: Boundaries have to be the multiples of the CW  
->Freq. Poly = Midpoint

**HISTOGRAM**

->touching rectangles

**POLYGON**

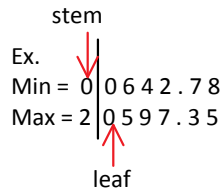
- >NOT closed
- >Midpoints

Nominal	Ordinal	Interval	Ratio
-Color of Eyes -Yes/No Questions -# on a green race car -Gender (male/female) -Zip Codes -Ethnicity -Marital Status -Program/Uni. Name	-Movie ratings/rank -USDS quality of beef -5pt Scale rate health -1 = strongly agree -2 = 2 agree... etc. -Restaurant ratings -Education level	-Temper. (cont.) -IQ (Discrete) -Height of Mountain above sea level (Cont.)	-Length of right foot w/ shoes in cm (cont.) -Shoe size? (discrete) -Height in cm w/o shoes (Cont.) -Salary, income sales (cont.) -Length, distance, volume -Height, weight -Age on last birthday (discrete)

**STEM AND LEAF PLOT**

- Stem:
- (1) 6-13 Stems
  - (2) Consecutive 1, 2, 5 times repeat
  - (3) at least 1 leaf associated w/ first and last stem
  - (4) Face value/indication
- Ex. Investor annual income in \$1000  
Stem x 10,000

2	
2	7
3	3 4
3	6 8
4	2 3
4	6
5	2 3 3
5	5 6 9
6	0 1 2
6	



- >Can remove excess rows  
->One digit #: 9  
S|L  
0|9  
->Look for Min/Max  
-> Bulk of data on left side = skewed right  
Bulk of data on right side = skewed left  
->Symmetrical

2	1 5 7
2	7 5 8 7 7 8
3	3 4 5 7 5
3	6 8 6 8
4	2 4
4	6
5	2
5	5
6	
6	

Skewed to the right

Remove

-> When to use CW = 2.5 and 25