Data Notes 4/13/20

Skip to 1 min

Mean - find the average

Average - sum of data divided by total # of data pts.

60, 67, 73, 63, 67 $\frac{\text{sum}}{\#\text{of pts}} \rightarrow \frac{330}{5} = \boxed{66}$

Median - middle; order from least to greatest

~~60~~, ~~63~~, [67], ~~67~~, ~~73~~

mode - most; # that appears most often

*can have 0, 1, or multiple modes

[67] 67 is repeated the most

Quartiles - needed for box & whispers

* must order least to greatest

① 2 4 | 5 6 | 6 6 | 7 8

Average 2 middle: $\frac{6+6}{2} = \frac{12}{2} = 6$

median of 1st half medians

1st quartile: $\frac{4+5}{2} \rightarrow \boxed{4.5}$

2nd quartile: $\frac{6+6}{2} \rightarrow \boxed{6}$

3rd quartile: $\frac{6+7}{2} \rightarrow \boxed{6.7}$

② 10 12 | 14 17 | 19 20 | 24 29

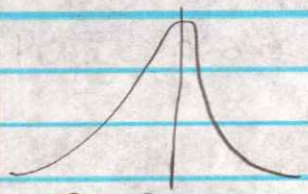
1st $\frac{12+14}{2} \rightarrow \boxed{13}$

2nd $\frac{17+19}{2} \rightarrow \boxed{18}$

3rd $\frac{20+24}{2} \rightarrow \boxed{22}$

Range: greatest # - smallest #

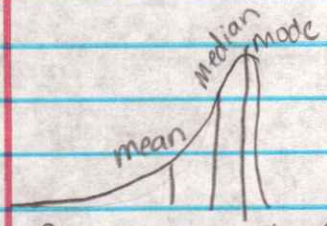
Ex1:



NORMAL

In a normal distribution the data is roughly symmetric.
The mean, median, & mode are equal

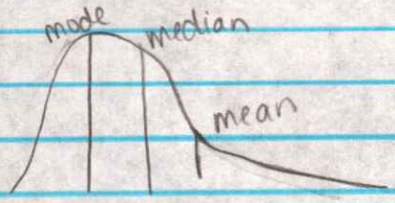
Ex2:



Negatively or Left

In a distribution that is negatively skewed, there is data that pulls the distribution to the LEFT
The mean is less than median & mode

Ex3:



Positively or Right

In a distribution that is positively skewed, there is data that pulls the distribution to the right.
The mean is more than median & mode

Ex1: 42 42 43 45 45 45 46 48 49

mean : 45
median : 45
mode : 45

All three are the same so it is normal

Ex2: 51 52 53 54 56 56 57 58 58

mean: 55 - less than
median: 56
mode: 56, 58

Skewed left