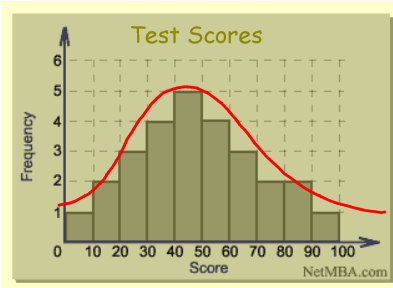



3.10 Common Distributions

Normal Distribution - "bell curve"

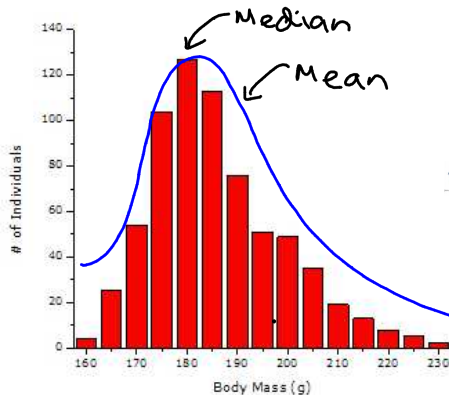


- data is distributed symmetrically
 - bell shaped 
 - the mean, median and mode are close in value and at the centre
- a) Estimate the mean for this data
- 👉 The mean is approx. 45

- b) What does this distribution tell you about the class?
- 👉 Most people scored around the middle of the data. The measures of central tendency would represent the data well.
- mean, median, mode*

Mar 4-9:06 AM

Skewed Distribution--> looks like a normal distribution that's been "pushed" to one side

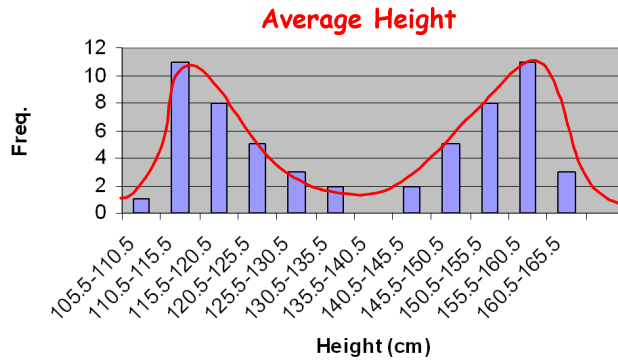


- What does the distribution tell you about the mass of the group?
- 👉 Most people had a body mass in the lower range of this data. The measures of central tendency would NOT represent the data well.
- The mean would be skewed higher in this case. The few much higher values would pull the mean (average) up.

Mar 4-9:12 AM

Bimodal Distribution

- has two "peaks"
- the frequencies cluster around two sub-groups



eg. Explain why there might be two "spikes" in this graph of the heights of Grade 1 and 6 students.

- 👉 Grade Ones are shorter than Grade six students so there are two clusters of data.

Mar 4-9:15 AM

Identify the Type of Distribution & Explain Why

skewed normal bimodal

- the mass of members of a CFL football team compared to the rest of the population
 👉 skewed: CFL players are heavier than average people
- the weekly cost to students of transportation to/from Algonquin College
 👉 normal: most students live the same distance from the college
- the finishing times of men's and women's marathon
 👉 bimodal: there are two separate categories male/female

Mar 4-10:51 AM

Homework

page 153 #1,3,5,6,7

Once you have finished start the
Stats Practice Review

Mar 4-10:52 AM