

## **1 Chapter 1**

## **2 Chapter 2**

## **3 Chapter 3. The Histogram**

1. In a histogram, the areas of blocks represent percentages, and the total area under histogram should be 100
2. To figure out height of block over class interval, divide percentage by length of interval.
3. Standard convention for histograms is X-Axis : Property in some units, Y-Axis: Percent per Unit.
4. The height of histogram represents crowding in that particular interval.
5. A variable is a characteristic of the subjects in study. It can be either qualitative or quantitative(discrete or continuous).
6. A co-founding factor is sometimes controlled for by cross-tabulation.

## **4 Chapter 4. Average and Standard Deviation**

1. The average of a list of numbers is equal to sum divided of how many there are.
2. The median is a positional entity, with half of observations falling greater and rest half of observation falling lower than itself.
3. RMS of a list is root of the mean of the square of items in the list. i.e.  $\text{root}(\text{mean}(\text{sqr}(\text{items})))$
4. SD of a list is root of the mean of the square of deviation of items from original avg. i.e.  $\text{root}(\text{mean}(\text{sqr}(\text{deviations})))$
5. Roughly 68% of entries on a list are within one SD of average, Roughly 95% are within 2 SDs of avg. (This assumption only holds for data that can be approximated by a normal curve)