Here are a few points which I’d like to highlight from HOMEWORK #1.

**EXERCISE 1.4** (Use of herbal medicines)

(a) The experimental units of the study are the *surgical patients*.

(b) Variable measured for each experimental unit: *whether the patient had used herbal or alternative medicines against their doctor’s advice before surgery.* (NOTE: the variable is *NOT* the quantity of herbal or alternative medicines used, if used at all)

(c) The data collected is *QUALITATIVE* and *NOT quantitative*. (as the patients’ answers fall in either of the 2 categories “YES” or “NO”. NOTE: the variable STILL REMAINS QUALITATIVE even if the YES/NO responses are coded by 1/0 or any other pairs of numbers of our choice. Just because we are coding the response by some numerical values, the variable does not become quantitative.)

**EXERCISE 1.8** (Use of herbal medicines)

(a) The 500 surgical patients represent a *sample* as they were selected from a larger class of patients at several metropolitan hospitals across the country.

(b) *(This is where I got the most interesting answers 😊)* Some of you have pointed out (and rightly so!) that the sample was drawn only from metropolitan hospitals and the hospitals in rural areas were not considered. And hence, *this does not form a representative sample, if the population under consideration is the entire country.* (FAIR ENOUGH!!!)

However *if the population comprises of only the metropolitan area, then the sample is likely to be representative of the population.* And what is the reason behind this claim? The reason is *NOT* that the sample size is large (which brings us into the framework of the Central Limit Theorem); the reason behind this claim is that the sample of 500 surgical patients were *randomly selected* from surgical patients at several metropolitan hospitals across the country. *(There are interesting theories which show that a sample represents a population ‘well’ only when the sample units are randomly selected!)*