In statistics, we deal with sampling a population and processing the data obtained to infer about the population. In probability, we deal with finding the chance of occurring (or not occurring) of a random event. Probability is a crucial mathematical tool for statistics. You can think of the data you get from sampling a population as a random number. The event that this data is equal to 1, or larger than 1,... is a random event.

In statistics, there are terminologies such that sample, population, data, mean, median, standard deviation,... Some basic probability terminologies are outcome, event, probability (chance), odd, distribution. Because we are interested in the likelihood that an event happens, it is important to know how to count the number of outcomes in an event. The multiplication principle is a basic counting technique.

Multiplication principle: (see worksheet) Work on some problems on the worksheet.