1. Conditional Expectation in case of two random variables.

Consider

where, are independent of each other and

Find the probability

1. Given a group of people, there are two experiments as measurement of temperature and blood pulse rate. Let us denote as one person and define two R.V.’s as

And the probabilities of the outcomes are

1. Find the conditional Probability
2. Find
3. Find E[E[X|Z]]