1. A fictional test for COVID-19 is assumed to be correct 95% of the time, i.e.,
   - If one has the virus, the test results in positive with probability 0.95;
   - If one does not have the virus, the test results in negative with probability 0.95.

   From a recent medical research, it is known that only 0.05% of the population have the virus. Given that a fictional person has just tested positive, what is the probability of them having the virus?

2. Solve Problem 6.8-1 in the textbook.

3. Solve Problem 6.8-4 in the textbook.

4. Solve Problem 6.8-5 in the textbook.