IE241 Engineering Statistics 1 Homework 1

Due date : March 22

1. Solve the following questions in the textbook.
2.20
2.26
2.54
2.104
2.119
2.129
2.137
2.154
2.163
2.172

2. Solve the following questions.

(a) Mr. Jones has two children. The older child is a girl. What is the probability that both children are girls?
(b) Mr. Smith has two children. At least one of them is a boy. What is the probability that both children are boys?

3. Suppose that there are n gentlemen wearing his own hat. They all put their hats in the urn, and pick one from the urn at random one by one.

a) Let $n = 3$. What is the probability that no one gets his own hat back?
b) Find the limit of the probability as $n \to \infty$.