1. A coin is thrown 3 times. What is the probability that at least one head is obtained?

2. Three coins are tossed up in the air, one at a time. What is the probability that two of them will land heads up and one will land tails up?

3. Which poker hand is more likely, 3 of a kind or straights?

4. A gambler presents you with an even-money wager. You will roll two dice, and if the highest number showing is one, two, three or four, then you win. If the highest number on either die is five or six, then she wins. Should you take the bet?

5. (Monty Hall problem) Suppose you're on a game show, and you're given the choice of three doors: Behind one door is a car; behind the others, goats. You pick a door, say No. 1, and the host, who knows what's behind the doors, opens another door, say No. 3, which has a goat. He then says to you, "Do you want to pick door No. 2?" Is it to your advantage to switch your choice?

6. If a man has 2 kids and you know that one of them is a boy, what is the probability that the other is a girl?

7. There are three boxes:

   - a box containing two gold coins,
   - a box containing two silver coins,
   - a box containing one gold coin and one silver coin.

   Choose a box at random. From this box, withdraw one coin at random. If that happens to be a gold coin, then what is the probability that the next coin drawn from the same box is also a gold coin?

8. There are 23 people. What is the probability that that 2 of them have the same birthday?

9. One hundred people line up to board an airplane. Each has a boarding pass with assigned seat. However, the first person to board has lost his boarding pass and takes a random seat. After that, each person takes the assigned seat if it is unoccupied, and one of unoccupied seats at random otherwise. What is the probability that the last person to board gets to sit in his assigned seat?