

1. If you toss a coin ten times, what is the probability that you will get
  - (a) four heads?
  - (b) at least two heads?
  - (c) two heads or two tails?
  - (d) six tails?
  
2. A multiple choice test has 20 questions and each question has five options.
  - (a) What is the probability that you get fewer than three questions right?
  - (b) What is the probability that you get all questions right?
  - (c) How many questions would you expect to get right if every answer was a random guess?
  
3. You are the quality control officer for a company that manufactures computer chips. For the last five years, an average of 8.5% of chips are returned as defective. If you randomly select 15 new chips, what is the probability that
  - (a) 5 are defective?
  - (b) no more than two are defective?
  - (c) none are defective?
  - (d) all are defective?