

1. A marksman gets bullseyes on 75% of his shots. He decides to shoot until he gets 10 bullseyes. How many times should he expect to shoot?
2. Roll 30 dice. What are the
  - a) expected value, and
  - b) variancefor the sum of the numbers on the dice?
3. What are the
  - a) expected value, and
  - b) variancefor the number of aces in a 7 card poker hand?
4. What are the
  - a) expected value, and
  - b) variancefor the number of suits in a 7 card poker hand?
5. Flip 3 coins. Then roll as many dice as you got heads. What is the expected value of the sum of the numbers on the dice?
6. A 500 page book contains 1200 misprints. Use the Poisson distribution to answer the following:
  - a) What is the probability there are no misprints on page 29?
  - b) What is the probability there are three or more misprints on page 29?