

1. Of the 25 people who attended DataFest, five prefer vanilla ice cream, 8 prefer chocolate and 4 like strawberry. The remaining group has no particular preference. Mr. Sarson surveys six of those people at random to determine how much ice cream to buy.
 - (a) What is the probability that none of those surveyed like vanilla?
 - (b) What is the probability that at least two people prefer chocolate?
 - (c) What is the probability that three have no preference?
 - (d) What is the expected number of people surveyed who do not have a preference?

2. You select five cards from a regular deck without replacement.
 - (a) What is the probability that three cards are red?
 - (b) What is the probability that three cards are spades?
 - (c) What is the probability that at least three cards are hearts?
 - (d) What is the expected number of hearts in your hand?