

Warm-up Exercises
July 9 2008

1. A poker hand is dealt. Find the chance that the first four cards are aces and the fifth is a king.

2. A coin is tossed six times. Two possible sequences of results are
(i) HTTHTH (ii) HHHHHH
The coins must land in this order. Which of the following is correct?
 - a. Sequence (i) is more likely.
 - b. Sequence (ii) is more likely.
 - c. Both sequences are equally likely.

3. A deck of cards is shuffled. True or false, and briefly why:
 - a. The chance that the top card is the Jack of Clubs is $\frac{1}{52}$
 - b. The chance that the top card is the Jack of Clubs or the bottom card is the Jack of Diamonds is $\frac{2}{52}$
 - c. The chance that the top card is the jack of clubs and the bottom card is the jack of diamonds is $\frac{1}{52} \cdot \frac{1}{52}$

4. Three cards are dealt from a well-shuffled deck.
 - a. Find the chance that all of the cards are diamonds.
 - b. Find the chance that none of the cards are diamonds.
 - c. Find the chance that the cards are not all diamonds.