AP Statistics
Chapter 6—Probability

Name _____
Date _____ Period____

Dependent Events

1. A single coin is tossed twice. Event A is having the coin land heads up on the first toss. Event B is having the coin land tails up on the second toss.

Are the two events independent or dependent? _____

Find P(A and B) _____

2. Two cards are drawn from a standard 52 card deck. The first card is not placed back in the deck before the second card is drawn. Event A is drawing a queen for the first card. Event B is drawing a king for the second card.

Are the two events independent or dependent? _____

Find P(A and B) _____

3. Two cards are drawn from a standard deck of 52 cards. The first card is placed back into the deck before the second card is drawn. Event A is drawing a queen for the first card. Event B is drawing a king for the second card.

Are the two events independent or dependent? _____

Find P(A and B) _____

4. A jar contains 12 red marbles, 16 blue marbles and 18 white marbles.

A) Three marbles are chosen from the jar without replacement. What is the probability that **none** is white?

B) Four marbles are chosen from a jar without replacement. What is the probability that **all** are white?

C) What is the probability of drawing a red marble, then a blue marble?

D) What is the probability of drawing a red marble, then white, then blue?

5. Two cards are drawn from a standard 52 card deck. The first card is not replaced before the second card is drawn.

A) Event A is drawing a face card. Event B is drawing an ace. Find P(A and B).

B) Event A is drawing a 2. Event B is drawing a 10. Find P(A and B).

C) Event A is drawing a 7. Event B is drawing another 7. Find P(A and B).

6. Three cards are drawn from a standard 52 card deck. The first card is not replaced before the second card is drawn.

A) Event A is drawing an ace. Event B is drawing a face card. Event C is drawing a 7. Find P(A and B and C).

B) Event A is drawing a king. Event B is drawing another king. Event C is drawing a third king. Find P(A and B and C).