

8-4

Word Problem Practice

Probability of Composite Experiments

1. CHECKERS In a game of checkers, there are 12 red game pieces and 12 black game pieces. Julio is setting up the board to begin playing. What is the probability that the first two checkers he pulls from the box at random will be two red checkers?

2. CHECKERS What is the probability that the first two pieces are a red followed by a black? Explain how you found your answer.

CHESS For Exercises 3 and 4, use the following information.

Ingrid keeps her white and black chess pieces in separate bags. For each color, there are 8 pawns, 2 rooks, 2 bishops, 2 knights, 1 queen, and 1 king.

3. Are the events of drawing a knight from the bag of white pieces and drawing a pawn from the bag of black pieces *dependent* or *independent* events? Explain. Find the probability of this compound event.

4. Are the events of drawing a bishop from the bag of white pieces and then drawing the queen from the same bag *dependent* or *independent* events? Explain. Find the probability of this compound event.

5. GAMES A blackjack hand of 2 cards is randomly dealt from a standard deck of 52 cards. What is the probability that the first card is an ace and the second card is a face card?

6. SPORTS During the 2002 soccer season, Maren Meinert of the Boston Breakers made approximately 2 goal points for every 5 of her shots on goal. What is the probability that Maren Meinert would make 2 goal points on two shots in a row during the 2002 season?