

**LESSON**  
**13.4****Practice A***For use with pages 861–867*

**In Exercises 1–6, you draw a card from a bag that contains 4 yellow cards numbered 1–4 and 4 blue cards numbered 1–4. Tell whether the events *A* and *B* are mutually exclusive or overlapping. Then find  $P(A \text{ or } B)$ .**

1. **Event A:** You choose a yellow card.  
**Event B:** You choose a blue card.
2. **Event A:** You choose a blue card.  
**Event B:** You choose a number 3 card.
3. **Event A:** You choose a number 1 card.  
**Event B:** You choose a yellow card.
4. **Event A:** You choose a card with an odd number.  
**Event B:** You choose a number 2 card.
5. **Event A:** You choose a blue number 4 card.  
**Event B:** You choose a blue card.
6. **Event A:** You choose a card with an odd number.  
**Event B:** You choose a yellow card.

**In Exercises 7–9, tell whether the events *A* and *B* are dependent or independent. Then find  $P(A \text{ and } B)$ .**

7. A bag contains 3 red balls and 4 green balls. You randomly draw one ball, replace it, and randomly draw a second ball.  
**Event A:** The first ball is red.  
**Event B:** The second ball is red.
8. You write each of the letters of the word LISTED on pieces of paper and place them in a bag. You randomly draw one letter, do not replace it, then randomly draw a second letter.  
**Event A:** The first letter is an L.  
**Event B:** The second letter is a T.
9. You write each of the letters of the word BRIGHTNESS on pieces of paper and place them in a bag. You randomly draw one letter, replace it, then randomly draw a second letter.  
**Event A:** The first letter is a B.  
**Event B:** The second letter is an H.
10. **Lunch** One of your friends eats lunch in the cafeteria sometime between 12:00 P.M. and 12:30 P.M. Another friend eats lunch in the cafeteria sometime between 12:15 P.M. and 12:45 P.M. Today you get to the cafeteria at 12:20 P.M. What is the probability that you have missed both friends in the cafeteria?
11. **Sports** A survey of 500 students in a school found that about 225 households consist of students who participate in some kind of sport, 250 consist of students who do and do not participate in some kind of sport, and 25 consist of students who do not participate in some kind of sport.
  - a. What is the probability that one of the households surveyed, chosen at random, consists of students who do *or* do not participate in some kind of sport?
  - b. What is the probability that one of the households surveyed, chosen at random, consists of students who do *and* do not participate in some kind of sport?