

LESSON
11.4**Practice B***For use with the lesson "Find Probabilities of Disjoint and Overlapping Events"***Events A and B are disjoint. Find $P(A \text{ or } B)$.**

1. $P(A) = 0.1, P(B) = 0.45$ 2. $P(A) = 0.85, P(B) = 0.05$ 3. $P(A) = \frac{1}{2}, P(B) = \frac{1}{5}$

Find the indicated probability.

4. $P(A) = \frac{1}{6}, P(B) = \frac{5}{6}$ 5. $P(A) = 0.23, P(B) = 0.36$ 6. $P(A) = \frac{5}{8}, P(B) = \frac{1}{4}$

$$P(A \text{ or } B) = \frac{1}{3}$$

$$P(A \text{ or } B) = 0.25$$

$$P(A \text{ or } B) = \frac{1}{2}$$

$$P(A \text{ and } B) = \underline{\quad? \quad}$$

$$P(A \text{ and } B) = \underline{\quad? \quad}$$

$$P(A \text{ and } B) = \underline{\quad? \quad}$$

Find $P(\bar{A})$.

7. $P(A) = 1$ 8. $P(A) = 0.25$ 9. $P(A) = \frac{9}{16}$

Find the indicated probability. State whether A and B are disjoint events.

10. $P(A) = \frac{2}{13}, P(B) = \underline{\quad? \quad}$ 11. $P(A) = 17\%, P(B) = 35\%$ 12. $P(A) = \frac{5}{6}, P(B) = \frac{2}{5}$

$$P(A \text{ or } B) = \frac{8}{13}$$

$$P(A \text{ or } B) = 52\%$$

$$P(A \text{ or } B) = \underline{\quad? \quad}$$

$$P(A \text{ and } B) = \underline{\quad? \quad}$$

$$P(A \text{ and } B) = \frac{2}{3}$$

$$P(A \text{ and } B) = \frac{4}{13}$$

Two six-sided dice are rolled. Find the probability of the given event.
(Refer to Example 4 on page 709 of the textbook for the possible outcomes.)

13. The sum is greater than 4. 14. The sum is 6 or 11.
 15. The sum is neither 5 nor 9. 16. The sum is greater than 7 and less than 11.

- 17. Honors Banquet** Of the 120 students honored at an academic banquet, 40% won awards for mathematics and 55% for English. Fourteen of these students won awards for both mathematics and English. One of the 120 students is chosen at random to be interviewed for a newspaper article. What is the probability that the student won an award in mathematics or English?

- 18. Parakeets** A pet store has 18 light green parakeets (5 females and 13 males) and 25 sky blue parakeets (15 females and 10 males). You randomly choose one of the parakeets. What is the probability that it is a male or a sky blue parakeet?

- 19. Potluck Dinner** The organizer of a potluck dinner sends 6 people a list of 10 different recipes and asks each person to bring one of the items on the list. If all 6 people randomly choose a recipe from the list, what is the probability that at least 2 will bring the same thing?