13-5

Practice

Conditional Probabilities

Find each probability.

1. Two number cubes are tossed. Find the probability that the numbers showing on the cubes match, given that their sum is greater than 7.

2. A four-digit number is formed from the digits 1, 2, 3, and 4. Find the probability that the number ends in the digits 41, given that the number is odd.

3. Three coins are tossed. Find the probability that exactly two coins show tails, given that the third coin shows tails.

A card is chosen from a standard deck of cards. Find each probability, given that the card is red.

4. P(diamond)

5. P(six of hearts)

6. P(queen or 10)

7. P(face card)

A survey taken at Stirers High School shows that 48% of the respondents like soccer, 66% like basketball, and 38% like hockey. Also, 30% like soccer and basketball, 22% like basketball and hockey, and 28% like soccer and hockey. Finally, 12% like all three sports.

8. If Meg likes basketball, what is the probability that she also likes soccer?

9. If Jaime likes soccer, what is the probability that he also likes hockey and basketball?

10. If Ashley likes basketball, what is the probability that she also likes hockey?

11. If Brett likes soccer, what is the probability that he also likes basketball?