1. Find the probability that a number greater than or equal to 4 appears on the up face in a single toss of a fair die.
2. Find the probability that an even number appears on the up face in a single toss of a fair die.
3. Find the probability that at least one head appears when two fair coins are flipped and the up face on each is observed.
4. Identify the sample space for rolling two fair dice and taking the sum. Find the probability that the sum of the numbers on the up faces equal 7 when a pair of fair dice is tossed.

|  | 1 | 2 | 3 | 4 | 5 | 6 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1 |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |
| 3 |  |  |  |  |  |  |
| 4 |  |  |  |  |  |  |
| 5 |  |  |  |  |  |  |
| 6 |  |  |  |  |  |  |

5. Find the probability that the sum of the numbers on the up faces is less than 5 when a pair of fair dice is tossed.
6. Find the probability of drawing a face card when a single card is drawn at random from a wellshuffled standard deck of 52 playing cards.
7. Find the probability of drawing a diamond when a single card is drawn at random from a well-shuffled standard deck of 52 playing cards.
8. Find the probability of drawing a red marble when a single marble is drawn at random from a bag containing 7 black marbles, 6 green marbles, and 10 red marbles.
9. A multiple-choice question has four possible answer choices (A, B, C, or D), one of which is correct. Suppose that an unprepared student does not read the question, but simply makes a random guess for the question. What is the probability that the student will guess the correct answer?
10. A box contains 30 identical-looking items of which 3 are defective. If one item is selected at random, what is the probability that the item is defective?
