### 8.2 Exercises

Dodecahedron Die A dodecahedron die has 12 sides numbered
 1 through 12. You roll a dodecahedron. In Exercises 1-6, find the probability of the event. (See Example 1.)

1. Rolling a 6 2. Rolling an 11
2. Rolling a number less than 9
3. Rolling an odd number
4. Rolling a multiple of 4
5. Rolling a prime number
6. Raffle A charity sells 1000 tickets for a raffle. There is a grand prize of $\$ 200$ and 4 other prizes of $\$ 50$. You buy one ticket. (See Example 1.)
a. What is the probability that you win the grand prize?
b. What is the probability that you win a prize?

7. Lottery The table shows the payouts for the 600,000 people who played the lottery yesterday. You randomly choose one person who played the lottery yesterday. Find the probability that the person is in each payout group. (See Example 2.)

| Payout | People |
| :---: | :---: |
| $\$ 0$ | 568,375 |
| $\$ 3$ | 18,245 |
| $\$ 4$ | 9820 |
| $\$ 7$ | 3417 |
| $\$ 100$ | 136 |
| $\$ 10,000$ | 6 |
| $\$ 200,000$ | 1 |
| $\$ 16,000,000$ | 0 |

