8.4 Exercises

Computer-Generated Sequence **A computer randomly generates a sequence of symbols. The circle graph shows the probability that the computer generates each of the symbols. In Exercises 1–7, find the probability that the sequence occurs.** ***(See Examples 1 and 2.)***

1. 

2. 

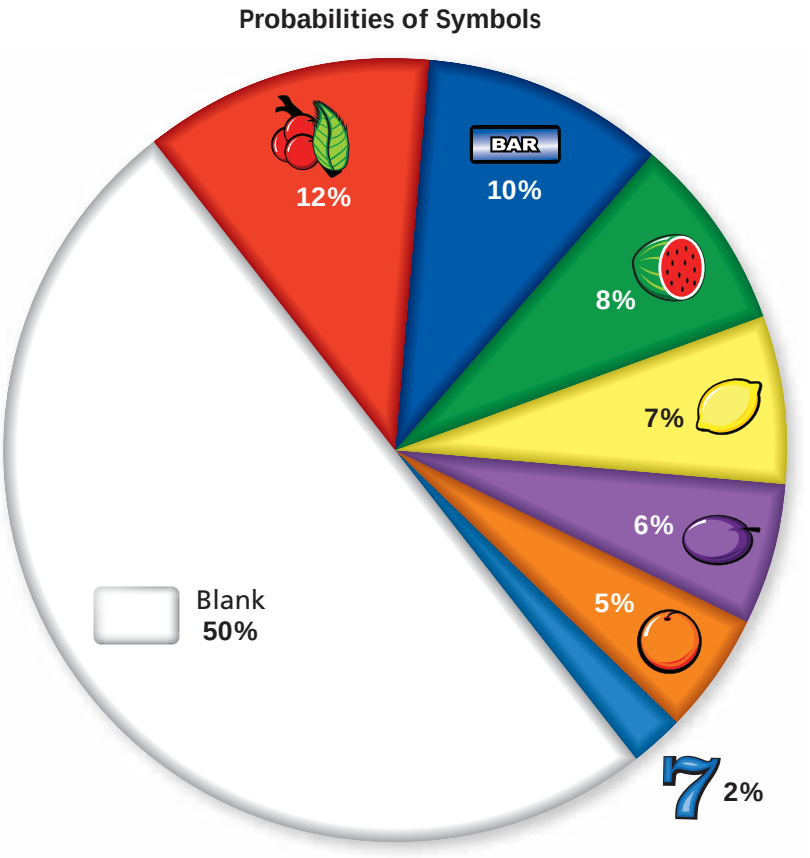
3. 

4. 

5. 

6. 

7. 



Around 1900, Charles Fey invented a slot machine called the Liberty Bell. It had three spinning reels with a total of five symbols: horseshoes, diamonds, spades, hearts, and a Liberty Bell. Three bells produced the biggest payoff, which was 10 nickels.

8. Slot Machine Complete the spreadsheet to find the expected value of each of the events in Exercises 1–7. Then find the probability that a given spin is a "no win." Suppose these symbols represent a slot machine game. What is the expected value?

DATA

	A	B	C	D
1	**Event**	**Probability**	**Payoff**	**Expected Value**
2	3 cherries		150	
3	3 bars		200	
4	3 watermelons		250	
5	3 lemons		400	
6	3 plums		1,000	
7	3 oranges		7,500	
8	3 sevens		12,000	
9	No win		-1	
10				