Independent and Dependent Events

Name_____
Date_____Period___

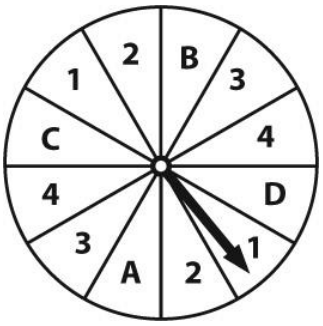
Find each probability.

1. Salene rolls a 1–6 number cube two times. What is the probability she will roll a 6 both times? $\frac{1}{36}$

2. Kalie rolls a 1–6 number cube two times. What is the probability she will roll an even number both times? $\frac{1}{4}$

3. Jamar rolls a 1–6 number cube three times. What is the probability he will roll an even number, then a 6, then a 4? $\frac{1}{72}$

For Problems 4–7, find the probability of spinning



4. a number followed by a letter $\frac{2}{9}$

5. a 2, then a letter, then an even number $\frac{1}{54}$

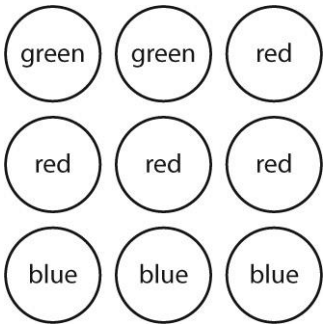
6. a letter, then an odd number, then a 4 $\frac{1}{54}$

7. a 4, then a C $\frac{1}{72}$

8. A card is randomly selected from a deck and not replaced. The deck is shuffled, and then a second card is drawn. Let *A* be selecting a 2 on the first draw. Let *B* be selecting a 2 on the second draw. What is the probability that a 2 will be drawn both times?

a. $P(A) = \frac{4}{52}$ b. $P(B|A) = \frac{3}{51}$ c. $P(A \text{ and } B) = \frac{4}{52} \times \frac{3}{51} = \frac{1}{221}$

A bag contains balls with the colors shown at the right. Find the probability for randomly selecting balls, one after the other, without replacing them.



9. blue and then red $\frac{1}{6}$
10. blue and then blue $\frac{1}{12}$
11. green and then blue $\frac{1}{12}$
12. blue and then red $\frac{1}{6}$
13. red and then red $\frac{1}{6}$
14. green and then green $\frac{1}{36}$

There are 3 apples, 4 oranges, and a pear in a bag. Determine each probability.

15. You select an orange and then a pear at random without replacement. $\frac{1}{14}$

16. You select an apple and then a pear at random without replacement. $\frac{3}{56}$

17. You select an orange, then an apple, and then a pear at random without replacement. $\frac{1}{28}$

18. You select an apple, then an orange, and then another apple without replacement. $\frac{1}{14}$