Name_____ Date_____

Chapter 15 Review

COMPLETE THE FOLLOWING. MAKE SURE YOU USE THE PROPER WAY OF SHOWING WORK ON ALL OF THE PROBLEMS

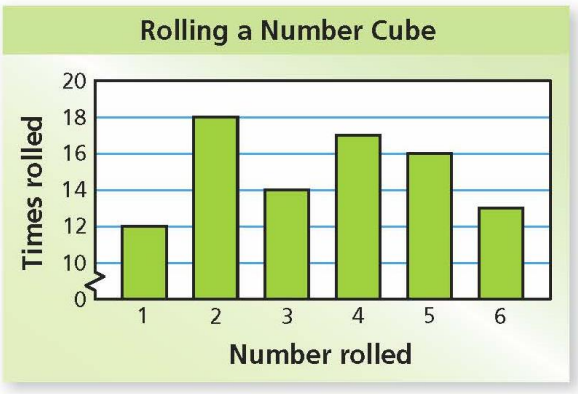
You randomly choose one game piece. (a) Find the number of ways the event can occur. (b) Find the favorable outcomes of the event.

1. Choosing green

2. Choosing *not* yellow

3. Use the Fundamental Counting Principle to find the total number of different sunscreens possible.

Sunscreen	
SPF	10, 15, 30, 45, 50
Type	Lotion, Spray, Gel



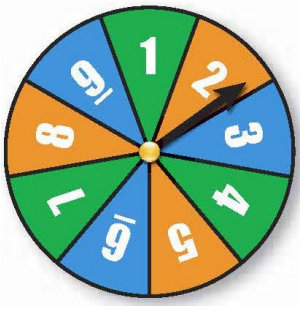
Use the bar graph to find the experimental probability of the event.

4. Rolling a 1 or a 2

5. Rolling an odd number

6. *Not* rolling a 5

Use the spinner to find the theoretical probability of the event(s).



7. Spinning an even number

8. Spinning a 1 and then a 2

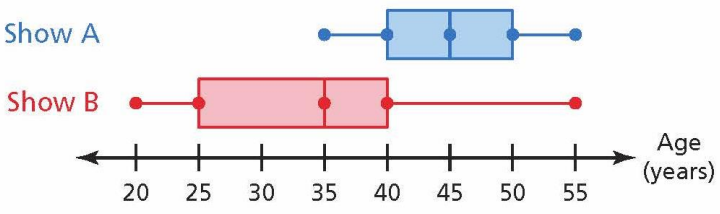
You randomly choose one chess piece. Without replacing the first piece, you randomly choose a second piece. Find the probability of choosing the first piece, then the second piece.

9. Bishop and bishop

10. King and queen

11. **LUNCH** You want to estimate the number of students in your school who prefer to bring a lunch from home rather than buy one at school. You survey five students who are standing in the lunch line. Determine whether the sample is *biased* or *unbiased*. Explain.

12. **AGES** The double box-and-whisker plot shows the ages of the viewers of two television shows in a small town.



a. Compare the populations using measures of center and variation.

b. Express the difference in the measures of center as a multiple of each measure of variation.

Answers

1. **a.** 1 **b.** green
2. **a.** 5
   b. red, blue, red, green, blue
3. 15
4. $\frac{1}{3}$, or about 33.3%
5. $\frac{7}{15}$, or about 46.7%
6. $\frac{37}{45}$, or about 82.2%
7. $\frac{4}{9}$, or about 44.4%
8. $\frac{1}{81}$, or about 1.2%
9. $\frac{1}{120}$, or about 0.8%
10. $\frac{1}{240}$, or about 0.4%
11. biased; The sample size is too small and students standing in line are more likely to say they prefer to buy their lunches at school.
12. **a.** Show A:
    median = 45, IQR = 10;
    Show B:
    median = 35, IQR = 15;
    Show B generally has a younger audience and more variation in ages than Show A.
    b. The difference in the medians is about 0.7 to 1 times the IQR.