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LESSON
11.1

## Find the number of possible outcomes in the sample space. Then list the possible outcomes.

1. You roll an 8 -sided number cube and toss two coins.
2. You toss four coins.

## In Exercises 3-6, refer to the spinner shown. The spinner is divided into sections with the same area.

3. What is the probability that the spinner does not stop on a prime number?
4. You spin the spinner 24 times. It stops on a multiple of 11 three times. What is the experimental probability of stopping on a multiple of 11 ?
5. What are the odds against stopping on a multiple of 4 ?
6. What are the odds in favor of stopping on a prime number?

7. A bag holds yellow, blue, and red marbles. You randomly draw a marble from the bag. The odds in favor of drawing a yellow marble are $18: 42$.
a. There are fewer than 100 marbles in the bag. How many marbles are in the bag? Justify your answer.
b. The probability of drawing a blue marble is 0.6 . What is the probability of drawing a red marble? Explain how you found your answer.
8. Meteorites The table shows the areas of the seven continents on Earth. The total area of Earth is about $1.97 \times 10^{8}$ square miles.

| Continent | Asia | Africa | N. America | S. America | Antarctica | Europe | Australia |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Area $\left(\mathbf{m i}^{\mathbf{2}} \mathbf{)}\right.$ | $16,966,000$ | $11,706,000$ | $9,417,000$ | $6,884,000$ | $5,100,000$ | $4,063,000$ | $2,968,000$ |

a. What is the probability that a meteorite will not fall on one of the continents?

Round your answer to the nearest hundredth.
b. What is the probability that a meteorite will fall on Antarctica?
c. What are the odds in favor of a meteorite falling on Asia?
d. What are the odds against a meteorite falling on North America or South America?
9. Music A survey asked students to name the type of music of the last CD they bought. The circle graph shows the results of the survey.
a. What is the probability that a randomly selected student chose alternative or rock as his or her last CD bought?
b. What are the odds in favor of a randomly selected student choosing rap as his or her last CD bought?
c. What are the odds against a randomly selected student choosing hip hop as his or her last CD bought?


