NAME _____

Lesson 7.3 Calculating Probability

The **probability** of an event is the measure of how likely it is that the event will occur.

$$\text{Probability } (P) = \frac{\text{number of favorable outcomes}}{\text{number of possible outcomes}}$$

A bag contains 12 marbles, 7 blue and 5 red. If a marble is chosen at random, the probability that it will be red is:

$$\text{Probability } (P) = \frac{5 \text{ — the number of red marbles}}{12 \text{ — the total number of marbles}}$$

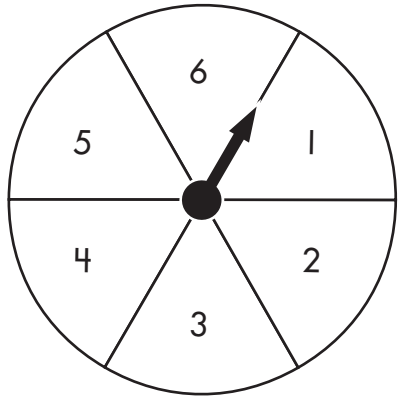
Solve each problem. Write answers as fractions in simplest form.

1. A bag contains 5 blue marbles, 3 red marbles, and 2 white marbles. What is the probability a selected marble will be red? _____

   What is the probability that a selected marble will not be white? _____

   What is the probability that a selected marble will be either blue or white? _____

Use the spinner to find the following probabilities. Write answers as fractions in simplest form.



2. $P(3) =$ _____
3. $P(\text{odd}) =$ _____
4. $P(1 \text{ or } 4) =$ _____
5. $P(> 4) =$ _____
6. $P(< 6) =$ _____
7. $P(\text{not } 5 \text{ or } 3) =$ _____