## 7-4 Probability

## Main Idea

- Find and interpret the probability of a simple event.

FOLDABLES Write the definition of probability in your Foldable.

## BUILD YOUR VocABULARY (pages 169-170)

An outcome is a possible $\square$ of an experiment. A simple event is one $\square$ or a collection of outcomes.

Probability is the $\square$ that some event will occur.

Outcomes occur at random if each outcome is $\square$ likely to occur.

## EXAMPLES Find Probability

There are six equally likely outcomes on the spinner shown.
(1) Find the probability of landing on 1.


The probability of landing on 1 is


2 Find the probability of landing on 2 or 4.
$P(2$ or 4$)=\frac{\text { number of favorable outcomes }}{\text { number of possible outcomes }}$


The probability of landing on 2 or 4 is


## Homework Assignment

Page(s):
Exercises:

## EXAMPLE Find Probability of the Complement

3 Use the spinner from Example 1. Find the probability of not landing on 6.
The probability of not landing on 6 and the probability of landing on 6 are $\square$. So, the sum of the probabilities is $\square$

$$
P(6)+P(\text { not } 6)=1
$$

$$
\square+P(\text { not } 6)=1 \quad \text { Replace } P(6) \text { with } \square
$$

$$
\frac{1}{6}+\square=1 \quad \text { THINK } \quad \frac{1}{6} \text { plus what number equals } 1 ?
$$

So, the probability of not landing on 6 is
$\square$

BUILD YOUR VOCABULARY (pages 169-170)
Complementary events are two events in which either one or the other must happen, but they cannot happen at the same time. The sum of the probability of an event and its complement is $\square$
$\square$

$$
x_{0}+2
$$

Check Your Progress
A number cube is rolled.
a. Find the probability of rolling a 4.

b. Find the probability of rolling a number greater than 3 .

c. Find the probability of not rolling an even number.

