

Practice A

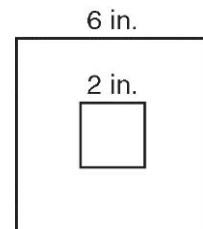
Theoretical and Experimental Probability

Answer each question.

1. How many possible outcomes are there from tossing two number cubes labeled 1–6?
2. Describe the sample space for a spinner with four equal sections of blue, red, green, and yellow.
3. How likely is it that an outcome with a probability of 1 will occur?
4. How likely is it that an outcome with a probability of 0 will occur?

Solve.

5. A farmer has four sheepdogs and three beagles. If he randomly chooses a dog to accompany him on a walk, what is the probability of him taking a walk with a sheepdog?
6. Gordon spins a spinner with equal-sized sections numbered 1–6. In one spin, what is the likelihood that the spinner will stop on a 1 or a 5?
7. Oak trees shade 30% of the Fitzgeralds' backyard. What is the probability that someone standing at a random point in the backyard will NOT be in the shade?
8. Find the probability that a point chosen at random inside the larger square shown here will also fall inside the smaller square.



The table below shows the results of pulling one marble from a bag of marbles, recording its color, and replacing it in the bag.

Marble Color	Yellow	Red	Green
Times Pulled	53	17	30

Find the experimental probability of each event.

9. Choosing a yellow marble
10. NOT choosing a red marble
11. Choosing either a red or a green marble
12. Which color marble is probably present in greatest number in the bag?

**THEORETICAL AND
EXPERIMENTAL PROBABILITY**

Practice A - Answers

1. 36 outcomes
2. The sample space is blue, red, green, yellow.
3. Certain
4. Impossible
5. $\frac{4}{7}$
6. $\frac{1}{3}$
7. $\frac{7}{10}$
8. $\frac{1}{9}$
9. $\frac{53}{100}$
10. $\frac{83}{100}$
11. $\frac{47}{100}$
12. Yellow