

11-2

Practice
Probability

Form G

1. A basketball player attempted 24 shots and made 13. Find the experimental probability that the player will make the next shot she attempts.
2. A baseball player attempted to steal a base 70 times and was successful 47 times. Find the experimental probability that the player will be successful on his next attempt to steal a base.

Graphing Calculator For Exercises 3–4, define a simulation by telling how you represent correct answers, incorrect answers, and the quiz. Use your simulation to find each experimental probability.

3. If you guess the answers at random, what is the probability of getting at least three correct answers on a four-question true-or-false quiz?
4. A five-question multiple-choice quiz has four choices for each answer. If you guess the answers at random, what is the probability of getting at least four correct answers?

A group of five cards are numbered 1–5. You choose one card at random. Find each theoretical probability.

5. $P(\text{card is a 2})$
6. $P(\text{even number})$
7. $P(\text{prime number})$
8. $P(\text{less than 5})$

A bucket contains 15 blue pens, 35 black pens, and 40 red pens. You pick one pen at random. Find each theoretical probability.

9. $P(\text{black pen})$
10. $P(\text{blue pen or red pen})$
11. $P(\text{not a blue pen})$
12. $P(\text{black pen or not a red pen})$

11-2 Practice (continued)

Probability

Form G

13. There are 225 juniors and 255 seniors at your school. The school chooses 5 juniors and seniors as Student All-Stars. What is the theoretical probability that exactly 2 of the Student All-Stars will be juniors?

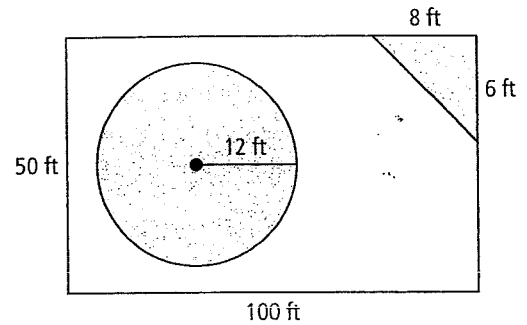
The rectangular yard shown below has a circular pool and a triangular garden. A ball from an adjacent golf course lands at a random point within the yard. Find each theoretical probability.

14. The ball lands in the pool.

15. The ball lands in the garden

16. The ball lands in the garden or the pool.

17. The ball does not land in the pool.



Five people each flip a coin one time. Find each theoretical probability.

18. $P(5 \text{ heads})$

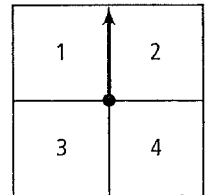
19. $P(\text{exactly } 2 \text{ tails})$

20. $P(\text{at least } 3 \text{ heads})$

21. $P(\text{less than } 4 \text{ tails})$

22. The spinner shown at the right has four equal-sized sections. Suppose you spin the spinner two times.

- What is the sample space?
- How many outcomes are there?
- What is the theoretical probability of getting a sum of 4?



23. If x is a real number and $x = 0$, what is the probability that $\frac{1}{x}$ is undefined?

24. If x is a real number and $x \neq 0$, what is the probability that $\frac{1}{x}$ is undefined?

25. Of the 195 students in the senior class, 104 study Spanish and 86 study French, with 12 studying both Spanish and French. What is the theoretical probability that a student chosen at random is studying Spanish, but not French?