12-1 Additional Practice

Probability Events

1. **Understand** Only 93% of the airplane parts being examined pass inspection. What is the probability that the next 5 parts examined will all pass inspection?

2. **Apply** Exactly 62% of the students in your school are under 17 years old. In addition, 4% of the students are over 18. What is the probability that a student chosen at random is under 17 or over 18?

You have a drawer with five pairs of white socks, three pairs of black socks, and one pair of red socks. You choose one pair of socks at random each morning, starting on Monday. You do not put the socks you choose back in the drawer. Find the probability of each event.

3. You select black socks on Monday and white socks on Tuesday.

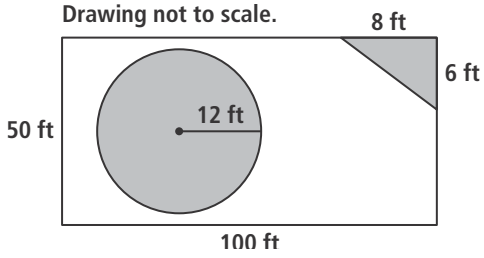
4. You select white socks on Monday and Tuesday.

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 probability.

5. The ball lands in the garden.

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

7. The ball does not land in the pool.



8. Of the 195 students in the senior class, 104 study Spanish and 85 study French, with 12 studying both Spanish and French. What is the probability that a student chosen at random is studying Spanish, but not French?

9. You donate 8 baseballs to a local baseball team. Your uncle donates 12 baseballs. If a total of 50 baseballs are donated, what is the probability that the first pitch of the season uses one of your baseballs or one of your uncle's baseballs?

12-1 Additional Practice

Probability Events

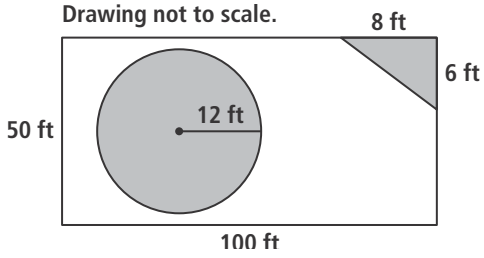
1. **Understand** Only 93% of the airplane parts being examined pass inspection. What is the probability that the next 5 parts examined will all pass inspection?
   about 69.6%

2. **Apply** Exactly 62% of the students in your school are under 17 years old. In addition, 4% of the students are over 18. What is the probability that a student chosen at random is under 17 or over 18?
   66%

You have a drawer with five pairs of white socks, three pairs of black socks, and one pair of red socks. You choose one pair of socks at random each morning, starting on Monday. You do not put the socks you choose back in the drawer. Find the probability of each event.

3. You select black socks on Monday and white socks on Tuesday.
   $\frac{5}{24}$
4. You select white socks on Monday and Tuesday.
   $\frac{5}{18}$

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 probability.



5. The ball lands in the garden.
   about 0.005

6. The ball lands in the garden or the pool.
   about 0.095

7. The ball does not land in the pool.
   about 0.91

8. Of the 195 students in the senior class, 104 study Spanish and 85 study French, with 12 studying both Spanish and French. What is the probability that a student chosen at random is studying Spanish, but not French?
   about 0.47 or 47%

9. You donate 8 baseballs to a local baseball team. Your uncle donates 12 baseballs. If a total of 50 baseballs are donated, what is the probability that the first pitch of the season uses one of your baseballs or one of your uncle's baseballs?
   0.4