

**LESSON**  
**11-3** **Practice A**  
***Independent and Dependent Events***

Find each probability.

1. Hal is tossing a quarter.
  - a. What is the probability he will toss heads? \_\_\_\_\_
  - b. What is the probability he will toss tails? \_\_\_\_\_
  - c. What is the probability he will toss heads and then tails? \_\_\_\_\_
2. Hal tosses a quarter three times. What is the probability the result will be tails each time? \_\_\_\_\_
3. Katie rolls a 1–6 number cube twice. What is the probability she will roll an odd number and then an even number? \_\_\_\_\_
4. Katie rolls the 1–6 number cube three times. What is the probability that the result will be a 3 each time? \_\_\_\_\_

**There are 3 apples and 5 oranges in a bag. Determine each probability.**

5. Selecting 2 apples when they are chosen at random without replacement \_\_\_\_\_
6. Selecting an orange, then an apple when they are chosen at random without replacement \_\_\_\_\_

**A student must have a B average or better for all courses to qualify for any athletic team at Jefferson High School. The table below shows the distribution of students' grades in three sports at the school.**

Sport	Students with an A Average	Students with a B Average
Field hockey	15	4
Basketball	7	13
Football	2	22

**An athlete is randomly selected. Find each probability in decimal form.**

7. The student is a field hockey player with a B average. \_\_\_\_\_
8. The student has an A average and plays football. \_\_\_\_\_
9. The student has a B average and does NOT play football. \_\_\_\_\_

**There are 4 green marbles and 3 white marbles in a bag. A white marble is randomly selected and not replaced. Then a green marble is randomly selected.**

10. Are these events dependent or independent? \_\_\_\_\_
11. What is the probability of this event occurring? \_\_\_\_\_