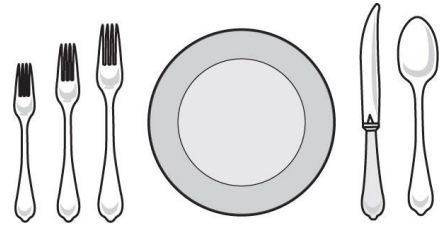


# 13-2 Practice

## Probability with Permutations and Combinations

**1. FORMAL DINING** You are handed 5 pieces of silverware for the formal setting shown. If you guess their placement at random, what is the probability that the knife and spoon are placed correctly?

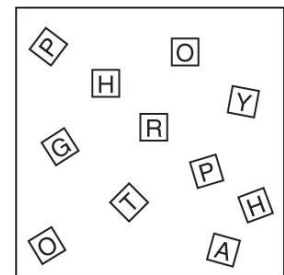


**2. GOLF** The standings list after the first day of a 3-day tournament is shown below. What is the probability that Wyatt, Gabe, and Isaac will all finish in the top 3?

DAY 1 STANDINGS	
MCAFEE, DAVID	-3
FORD, GABE	-2
STANDISH, TRISTAN	-2
NOCHOLS, WYATT	-1
PURCELL, JACK	-1
ANDERSON, BILL	-1
WRIGHT, ISAAC	-1
FILBERT, MITCH	+1

**3. PHONE NUMBER** What is the probability that a phone number generated using the digits 1, 2, 2, 4, 5, 5, 6, and 2 is the number 654-5222?

**4. LETTERS** Jaclyn bought some decorative letters for a scrapbook project. If she selected a permutation of the letters shown, what is the probability that they would form the word “photography”?



**5. COFFEE BREAK** A group of 6 friends of varying ages meets at a coffee shop and sits in a circle. What is the probability that the youngest member of the group sits in the seat closest to the door?

**6. JEWELRY** Bonita bought her mom a charm bracelet. Each charm is labeled with a one-word message. What is the probability that the 5 charms were hung in the order: dream, believe, love, laugh, inspire?

**7. COLLEGES** Mark wants to visit the 10 colleges he is considering attending. He can only spend the night at 3 of them. What is the probability that he spends a night at Rutgers University, a night at the University of Miami, and a night at Clemson University?

**8. ODD JOBS** Matthew put fliers advertising his lawn service on the doors of 20 families’ houses in his neighborhood. If 6 families called him, what is the probability that they were the Thompsons, the Rodriguezes, the Jacksons, the Williamses, the Kryceks, and the Carpenters?