

## THE FUNDAMENTAL COUNTING PRINCIPLE

**Read carefully and solve.**

1. Jerry has five shirts, six pairs of pants, and four pairs of shoes. How many different combinations of outfits can Jerry wear?
2. In an election of class officers, 3 students are running for president, 2 students for vice-president, and 3 students for secretary. Find the number of possible outcomes of the election.
3. What is the number of possible outcomes of selecting one day of the week and a month of the year?
4. Buddy is selecting components for a stereo system. He is choosing from 5 amplifiers, 4 sets of speakers, and 3 tape decks. How many different combinations of stereos can he buy?
5. You have a choice of hamburger, fish, or hot dog. The vegetable choices are corn or broccoli. The beverage choices are milk, soda, or water. How many different lunches are possible?

6. There are 8 math books, 6 science books, and 5 history books on the top shelf. How many different combinations are there to choose one math book, one science book and one history book?
  
7. How many possible outcomes are there in selecting a letter of the alphabet and a one-digit number greater than zero?
  
8. A restaurant has 10 kinds of sandwiches, 5 kinds of chips, and 7 kinds of soft drinks. How many combinations of meals could you order if you ordered a sandwich, chips and a drink?
  
9. Find the number of possible outcomes of arranging heads and tails by tossing a quarter, a dime, a nickel, and a penny.
  
10. Find the number of possible outcomes of buying a car with 6 choices of exterior paints, 3 interior colors and 2 transmissions?