- 1. How many license plates are possible if they consist of five letters followed by two digits? Repetition is permitted.
- 2. If there are 30 entries in a "best of breed" dog show, in how many ways can 1st, 2nd, and 3rd place be awarded?
- 3. You take a 6 question multiple choice quiz. There are five choices for each question. How many ways can the 6 question quiz be answered? Assume no answers are left unanswered
- 4. The Math Club has 40 members and wants to make a committee for their annual banquet. The committee will have 6 members. How many different committees can be formed?
- 5. A sandwich shop offers three different breads, five different meats and four different cheeses. How many sandwiches can be made if a customer chooses a bread, meat, and cheese for the sandwich?
- 6. In how many different ways can eight runners finish a race?
- 7. Find the number of ways the letters of the word KNICKKNACK can be arranged.
- 8. In how many different ways can a 7 question true-false test be answered if every question must be answered?
- 9. Milly has 64 crayons in a box but her teacher says she can only use 6 colors for a project. How many sets of 6 crayons can she choose?
- 10. How many 3 digit positive odd integers less than 500 are there if you are only allowed to use the digits 1, 2, 7, 8, and 9?
- 11. How many different zip codes can be formed if the first digit must be odd?
- 12. In the Florida Fantasy Five, you are trying to match 5 numbers from 1 to 39. Find the **probability** of winning the Florida Fantasy Five.

Answers to Mock Quiz

- 24360 (permutation)
- 3838380 (combination)
- 40320 (permutation; 8!)

- 74974368 (combination)

- .00000174 (combination)