Math 7: The Counting Principal Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Directions: Use The Counting Principal to solve the following probability problems. Do not forget to SHOW ALL YOUR WORK!**

1. You take a multiple choice test made up of 10 questions. EACH question has four possible answers. How may different ways are there to answer the questions on the test?
2. An online company is offering a Mothers Day special. Pick one movie from 4 choices, one restaurant from 6 choices, and 1 box of chocolate from 5 choices. How many possible Mother’s Day options are there?
3. A company puts a code on each item them sell. The code is made up of 3 numbers, 4 letters, and 6 punctuations. How many different code variations are there?
4. A fast food restaurant sells a combo meal where you can choose from 4 different types of burger, 7 different sides, and 10 different beverages. How many different combo choices can you choose?