Name_____   Date: March 22
Math 7 Honors   Practice Counting Principle

Directions: *Use the Fundamental Counting Principle to answer each question.*

1. The combination lock shown has 4 wheels. Wheel 1: 0-9 Wheel 2: A-J Wheel 3: K-T Wheel 4: 0-9 How many possible combinations are there?	2. Each student at Hills Village Middle School is given a 5-digit identification number using the digits 1-9. **Part A** How many different ID numbers are possible? **Part B** If none of the 5-digits could repeat, how many ID numbers are possible.
3. At Grant's Ice Cream shop you can choose between vanilla, chocolate, and strawberry ice cream. The different toppings are caramel, sprinkles, and chocolate syrup, and you can also choose between a waffle cone and sugar cone. How many different combinations of one ice cream, one topping, and one cone can be created?	4. From a group of 5 candidates, a committee of 3 people is selected. How many different ways can the committee be selected?

5. A New York State license plate uses a 7-character code. The first three characters are letters of the alphabet, but do not include I, O, or Q. The next 4 characters use the digits 0-9. Determine the total number of possible combinations for a license plate if the characters are allowed to repeat.