**ACCELERATED ALGEBRA NAME: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**PERMUTATION AND COMBINATION PRACTICE**

**Determine whether each scenario involves a permutation or combination. Then write the notation you should use and find the number of possibilities.**

1. How to choose two girls out of fourteen to be co-captains of the cheerleading team.

2. How to display three mannequins in a store window.

3. Batting order for a team of nine players.

4. First place and runner up winners for the ping-pong tournament in which 30 students participated.

5. A selection of five DVD’s from a group of eight for the foreign film festival.

6. Choosing four out of 12 people to serve on a committee.

7. Hiring 2 people from ten applicants.

8. Displaying seven out of ten trophies on a shelf in a display case.

9. a. Choosing four people to run the 1600 meter relay from the team’s best seven sprinters.

 b. Choosing the order in which the runners will compete in the relay.

10. You used your graphing calculator’s random number generator to choose the four-number code on the ten-key keypad lock for your garage door. What is the probability that someone punches in your exact code on their first try?