

## Assignment

Date \_\_\_\_\_ Period \_\_\_\_\_

**Evaluate each expression.**

1)  ${}_6P_5$

2)  ${}_6P_4$

3)  ${}_8P_3$

4)  ${}_{15}C_{11}$

5)  ${}_{17}C_{12}$

6)  ${}_{18}C_5$

**State if each scenario involves a permutation or a combination. Then find the number of possibilities.**

7) There are 40 applicants for three jobs: computer programmer, software tester, and manager.

8) The student body of 95 students wants to elect three representatives.

9) There are 10 applicants for three Computer Programmer positions.

10) You are setting the combination on a five-digit lock. You want to use the numbers 38175 but don't care what order they are in.

11) There are 50 applicants for two Software Tester positions.

12) A team of 16 lacrosse players needs to choose a captain and co-captain.

**Find the number of possibilities in each scenario.**

13) A team of 11 basketball players needs to choose a captain and co-captain.

14) Shanice and Trevon are planning trips to three countries this year. There are 7 countries they would like to visit. One trip will be one week long, another two days, and the other two weeks.

15) There are 40 applicants for two Systems Engineer positions.

16) 4 out of 12 students will ride in a car instead of a van

17) There are 15 applicants for three jobs: computer programmer, software tester, and manager.

18) The student body of 95 students wants to elect three representatives.