

Counting Principles Practice

Date _____ Period _____

Evaluate each expression.

1) ${}_5P_4$

2) ${}_8P_3$

3) ${}_{20}C_4$

4) ${}_{15}C_5$

State if each scenario involves a permutation or a combination.

5) The batting order for seven players on a 11 person team.

6) A group of 30 people are going to run a race. The top 7 finishers advance to the finals.

7) 4 out of 13 students will ride in a car instead of a van

8) There are 10 applicants for two jobs: computer programmer and software tester.

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

9) A group of 20 people are going to run a race. The top 6 finishers advance to the finals.

10) The student body of 20 students wants to elect a president, vice president, secretary, and treasurer.

11) Shanice has homework in seven subjects. She is deciding what order to complete them in.

12) There are 50 applicants for four Systems Engineer positions.

13) A team of 6 basketball players needs to choose a captain and co-captain.

14) The student body of 40 students wants to elect four representatives.