

Worksheet C2 : All Types of Permutations

1. How many 5-number license plates can be made using the digits 0, 1, 2, 3, 4, 5, if
 - a. repetitions ARE allowed
 - b. repetitions are NOT allowed
2. A teacher wants to write an ordered 4-question test from a pool of 12 questions. How many different forms of the test can the teacher write?
3. How many 5-number license plates can be made using the digits 1, 2, 3, 4, 5, 6, 7, if an odd digit must come first and
 - a. repetitions ARE allowed
 - b. repetitions are NOT allowed
4. Assume the same situation as #3, but tell me how many EVEN license plates can be made if repetitions ARE allowed.
5. In how many ways can 4 blue, 3 red, and 2 green flags be arranged on a pole?

6. Find the number of permutations of the letters of these words:

a. DEED

b. COMMITTEE

c. CINCINNATI

7. A player in a word game has the letters E, E, B, D, G, G, G. In how many ways can these letters be arranged?

8. Find the number of permutations of six colors on a spinner.

9. Find the number of ways 10 cheerleaders can make a circular formation.