

MACM day 2 Basic Counting Principles

Summary

If you choose something or another thing how have (something + another thing) choices. If you choose both, you multiply both choices. If you have a permutation with repeating elements, you need to get rid of some of those repeats. This is done by dividing by how many repeats ! because the repeats will have repeats ! combinations within itself.

Rule of Sum

To perform either of the task, it is done $m+n$ way

Rule of product

To perform both of the task, it is done $m*n$ way

Permutations with repetition

$(n/(k_1, k_2, \dots, k_n))$