

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

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