



NPTEL

NPTEL ONLINE COURSE

Discrete Mathematics

Functions

Matching initials

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Discrete Mathematics

Mathematical Induction and pigeonhole principle

Matching initials

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How many people do you need in a group to guarantee that there are at least two people whose first alphabet in their names are matching? What do I mean? You need to form a group and you need to find the number of people you need in the group where that many number of people should guarantee that there are two people whose names have the first alphabet matching.

You might think that just two people are enough. Suppose say a person's name starts with S you just find another person whose name starts with S and you are done. But will this number always guarantee that you will always have two people having their names matching that is the first alphabet matching? May not be. Two is not the lower bound for it. Right.

How many people in a group to guarantee that there are at least 2 people whose first alphabet in their names are matching?

S_____

S_____



So you have to find what is that number where this condition is satisfied. Think for a while. You will get the solution.