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Discrete Mathematics

Let Us Count

Combinations - Part 2

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Let us look at the same old question. Ten people, four people step forward to take their picture. Now what if our order wasn't important? It would become 10 choose 4. Correct. In how many ways can four people step forward and take a picture of four people not worrying about the order. Right. This is going to be the same as 10P4 with some division factor. So what are you going to divide? You are going to divide this by four factorial because no four people will try all possible four factorial combinations. Think about it.

So in general nC4 will be given. One can compute this with the formula, nP4 divide by four factorial. In general, nCr will be nPr divide by r factorial.

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Funded by

Department of Higher Education

Ministry of Human Resource Development

Government of India

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