

NPTEL

NPTEL ONLINE COURSE

Discrete Mathematics

Let Us Count

Chapter Summary

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We saw in this chapter seven nice ideas. The first one was the notion of factorial where it appears, applications, its meaning and so on. We solved a couple of problems on it. And then we switch to permutations, the notion of nPr , the picture example and so on. And then we studied combinations nCr and the relationship between permutations and combinations. The fourth point was the binomial theorem which was the generalization of your simple A plus B the whole square formula. The next was the generalization of binomial theorem which is the multinomial theorem. And then we saw the Pascal's triangle and some of its very cool properties. And finally we just saw the idea of Catalan numbers and how it is useful in different walks of computing.