



NPTEL

NPTEL ONLINE COURSE

Discrete Mathematics

Functions

Number of errors

Prof S.R.S. Iyengar

Department of Computer Science

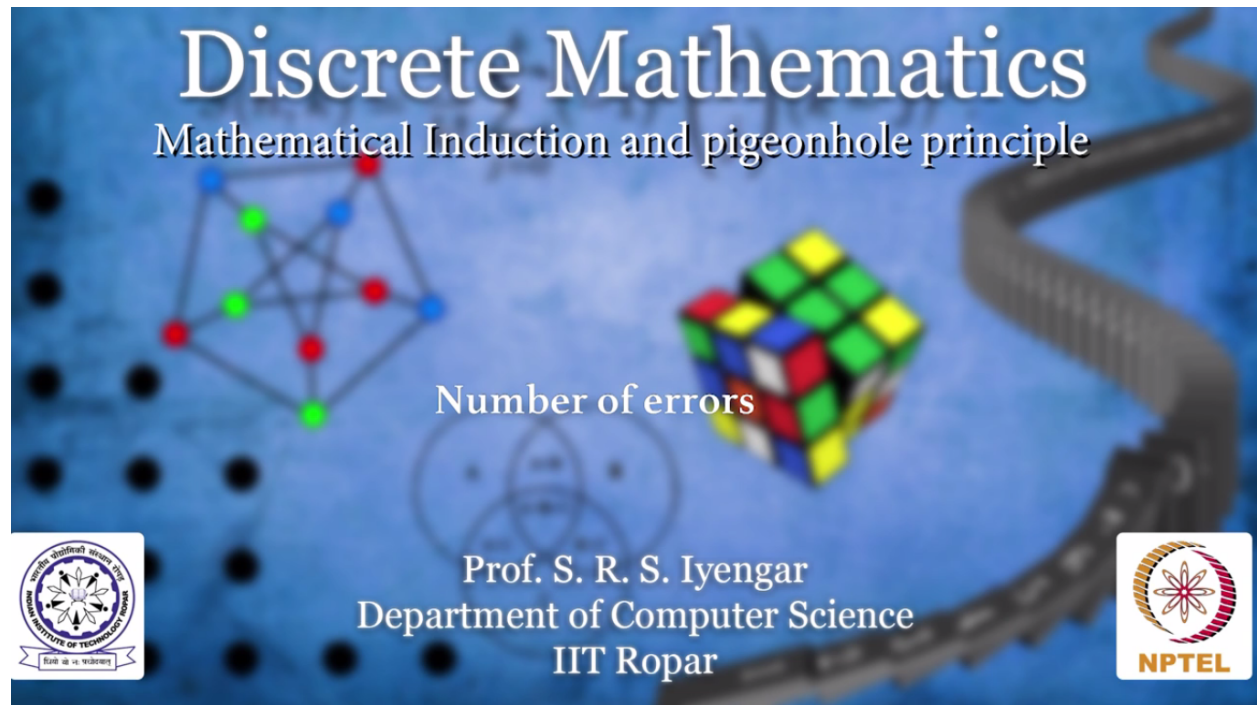
IIT Ropar

Discrete Mathematics

Mathematical Induction and pigeonhole principle

Number of errors

Prof. S. R. S. Iyengar
Department of Computer Science
IIT Ropar



12 students in the class wrote a dictation. You must be knowing in childhood all of us have been given dictations. So 12 students wrote a dictation. John made 10 errors and all the rest of them made less than 10. So John was the only one who made 10 errors. Rest of them made less than 10.

12 students in a class wrote a dictation.
John made 10 errors and all the rest of
them made less than 10 errors. Prove that
at least 2 students made equal number
of errors.



Now you must prove that at least two students made equal number of errors. Think about it. I will define the principle of Pigeonholes. You will find the solution in the next video.