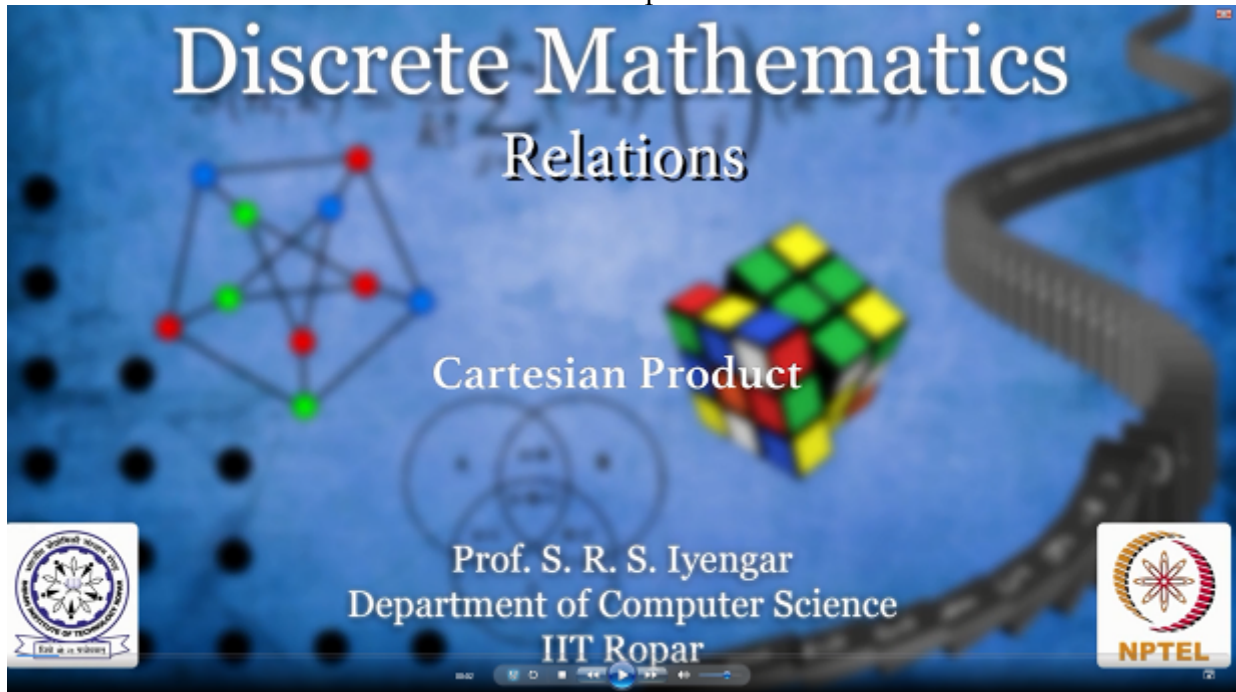


NPTEL
NPTEL ONLINE COURSE
Discrete Mathematics
Relations
Cartesian Product
With
Prof. S. R. S. Iyengar
Department of Computer Science
IIT Ropar



Let's take a set A of some five elements and then I write down A in two columns, as you can see, and then I will try to pick all possible two-element sets from A . How do I do that? I take something from the left side something from right side. How can I do this? I can take A and an A , A and a B , A and a C , A and a D , A and E ; or B and A , B and a B , B and a C , so on and so forth. Do you see how many possible such two tuples I can take? It's called the two tuples. I can actually take 5×5 , 25 of them.



This is called the cross product of a set A with itself. We denote that by A cross A . Note this. Throughout this chapter, this notation will be excessively used.

IIT Madras Production

Founded by

Department of Higher Education

Ministry of Human Resource Development

Government of India

www.nptel.iitm.ac.in

Copyright Reserved