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NPTEL ONLINE COURSE
Discrete Mathematics
Relations
Cartesian Product
With
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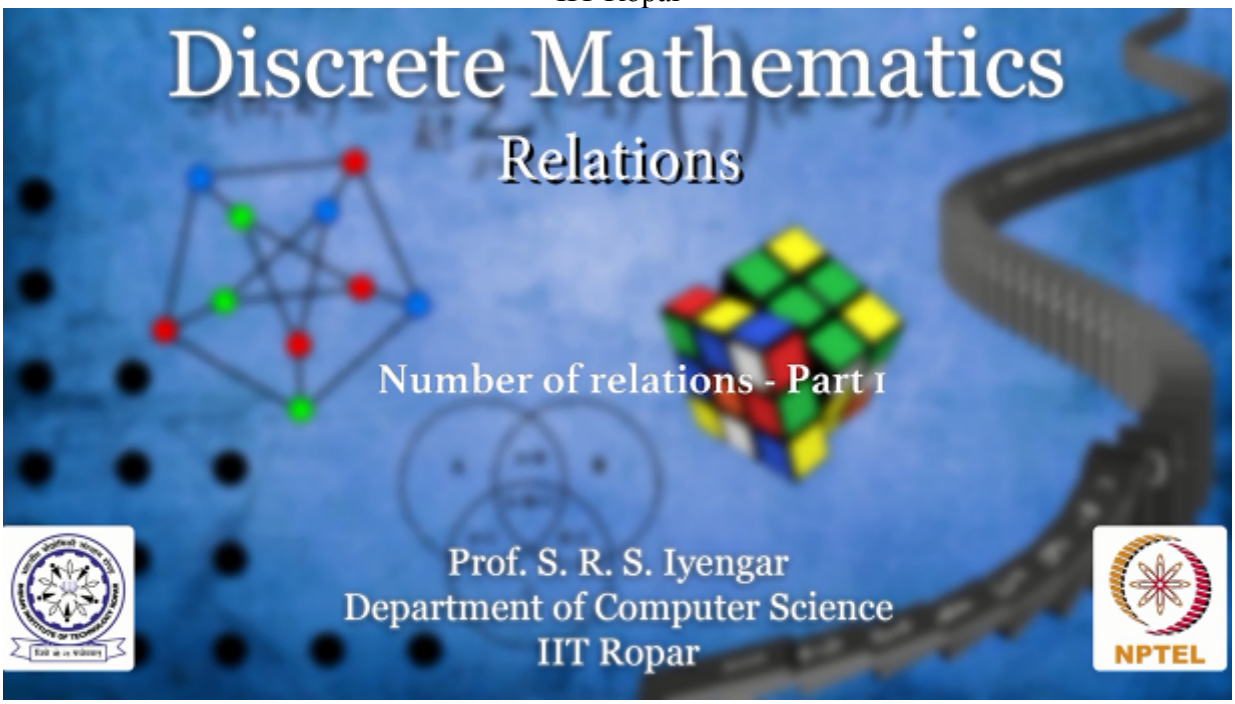

Okay, a natural question to ask always, especially in discrete mathematics, is how many ways, right, just the way we ask, in how many ways can you start from your home and go to your office. There having multiple ways, right. In discrete math especially, this is a very important question.

Let's ask the same question with the relations that we explained just now. Look at the set theoretic notation that we introduced, a relation is all possible subsets of A x A, correct.

If I ask you, let the set comprise of five elements, okay, and then I now will ask you, how many possible relations are there, it is naturally all possible subsets of you're A x A, where A comprises of some five elements, let's say, 1, 2, 3, 4, 5, right. So A x A comprises of 25 elements, and all possible subsets of these 25 elements set is simply 2^{25}, correct. So keep this in your mind, we'll come to this in detail very soon.

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