

Discrete Mathematics

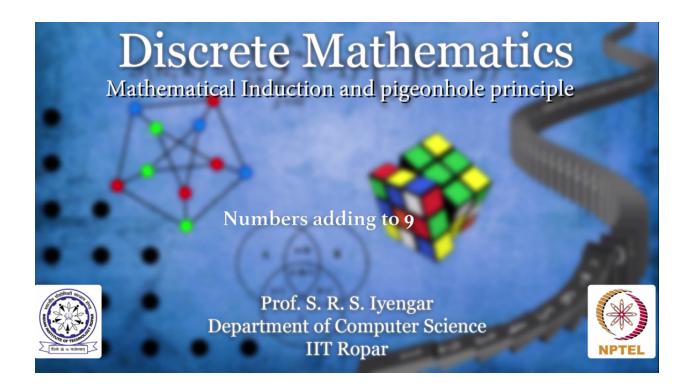
Functions

Numbers adding to 9

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If you pick five numbers from the numbers 1 to 8, again 1 and 8 included then two of them will add up to 9. What does it mean? You have been given the numbers 1 to 8, 1 and 8 included. This set 1 to 8. You pick any five numbers from these eight numbers you will end up having two numbers whose sum is nine.

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If you pick 5 numbers from the numbers

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\{1,2,...,8\}\] with 1 and 8 included then

two of them will add up to 9?
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Think about it. Use the Pigeonhole principle to prove that this is true. We will give you the solution in the next video.