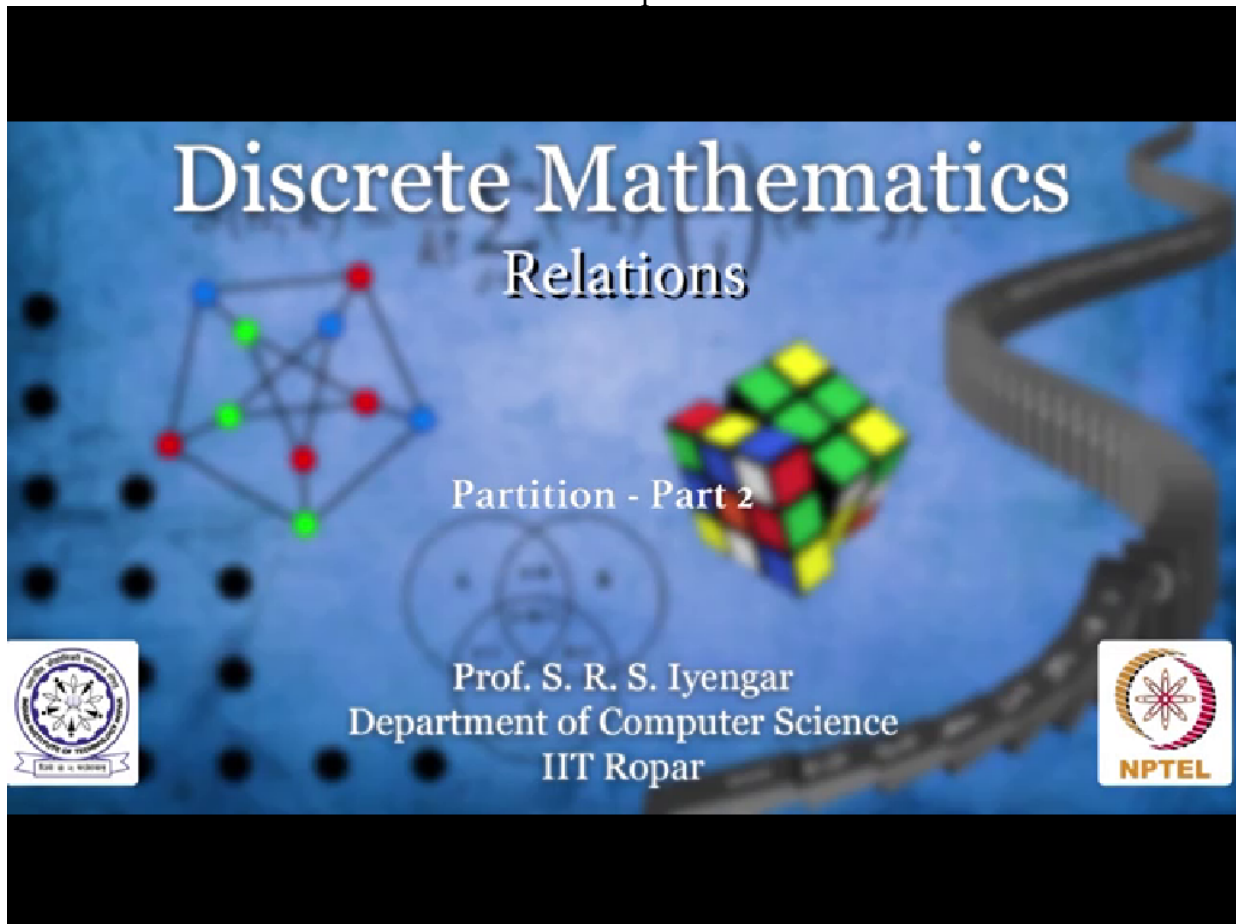


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NPTEL ONLINE COURSE
Discrete Mathematics
Relations
Partition - Part 2
Prof. S. R. S. Iyengar
Department of Computer Science
IIT Ropar



Let me motivate you all with yet another example. So let me consider integers from 1 to 100. I call two numbers to be related if they both leave the same remainder when divided by 4. You see 6 and 10 are related because they both leave the remainder 2 when divided by 4.

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$\{1, 2, 3, 4, 5, 6, 7, 8, \dots, 99, 100\}$

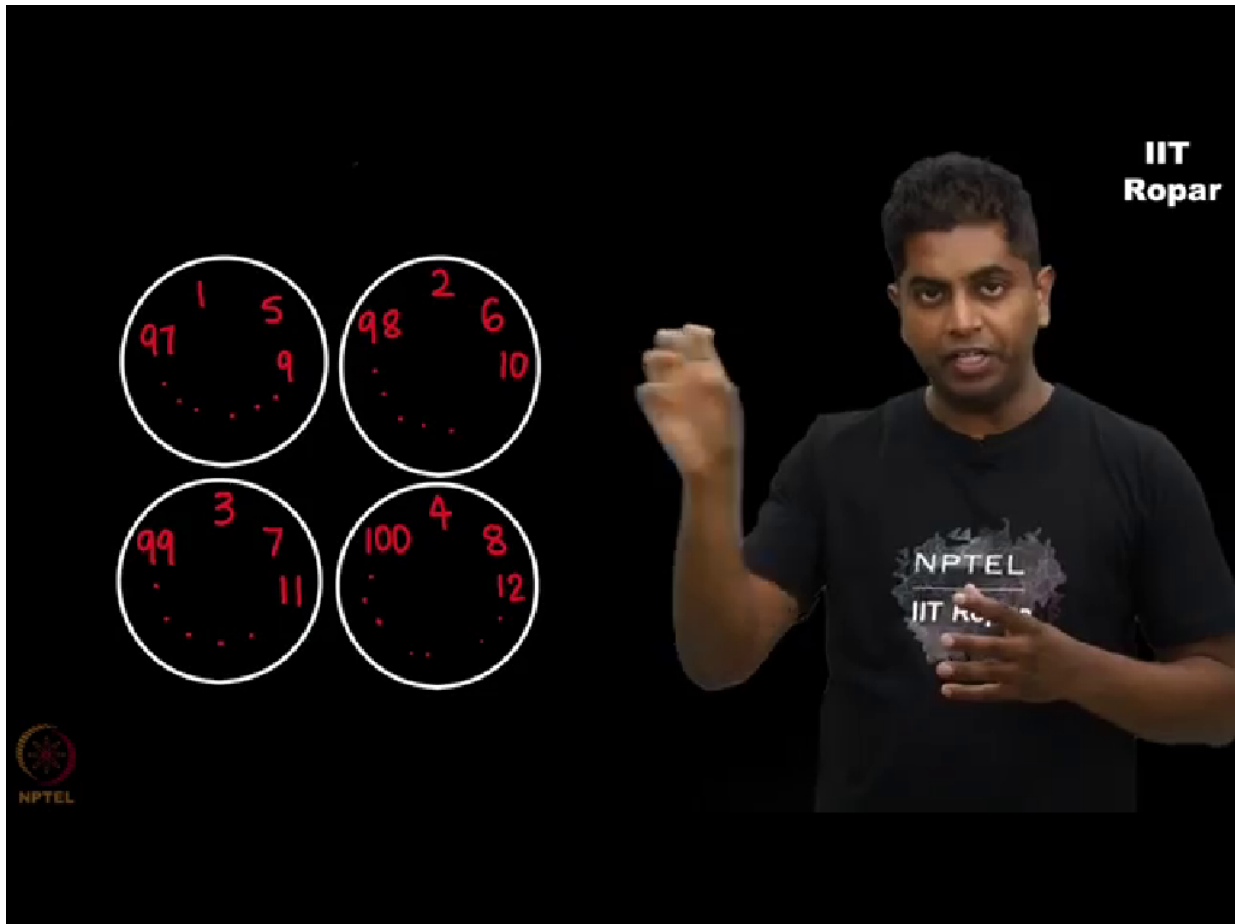
$a R b$ if a and b leave
the same remainder
when divided by 4

$6 R 10$

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So likewise I call, I take let's say 1 and observe that 1 is related to 5, 1 is related to 9, 1 is related to let's say 97 and so on, right? Do you see something very peculiar about this relation? It is again classifying the entire set into disjoint partitions.



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