NPTEL
NPTEL ONLINE COURSE

Discrete Mathematics
Functions

Definition of Composition of functions

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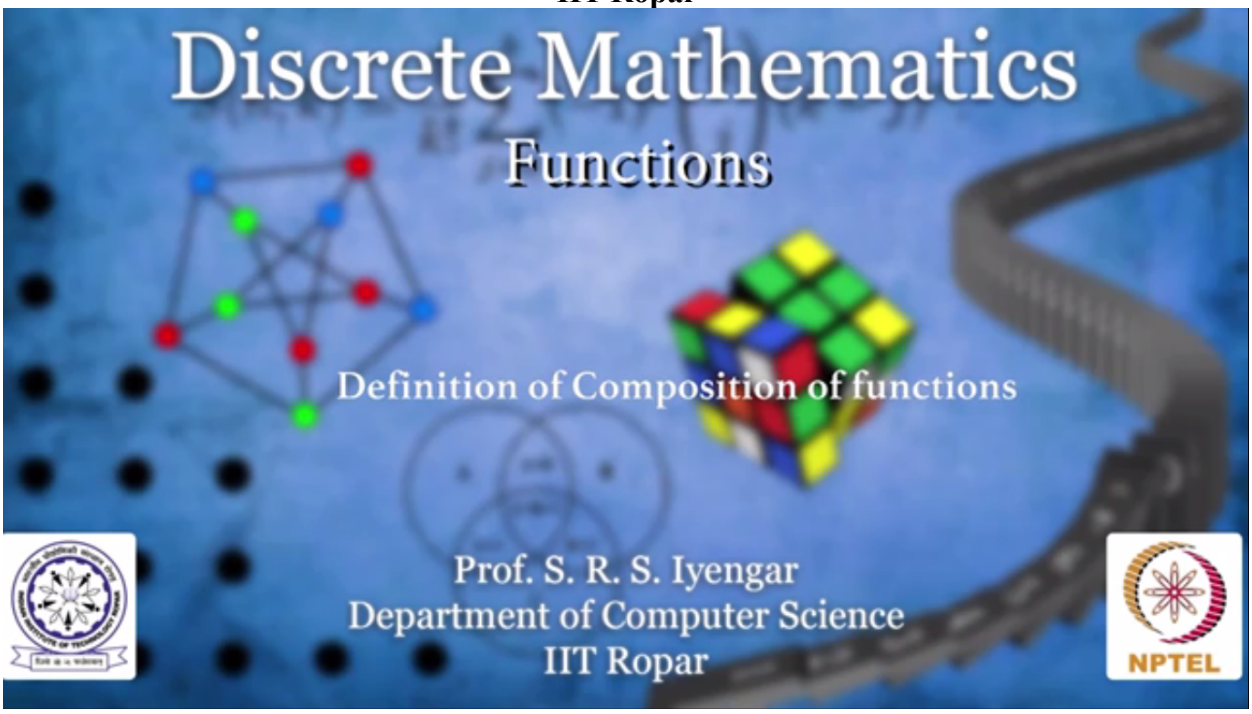
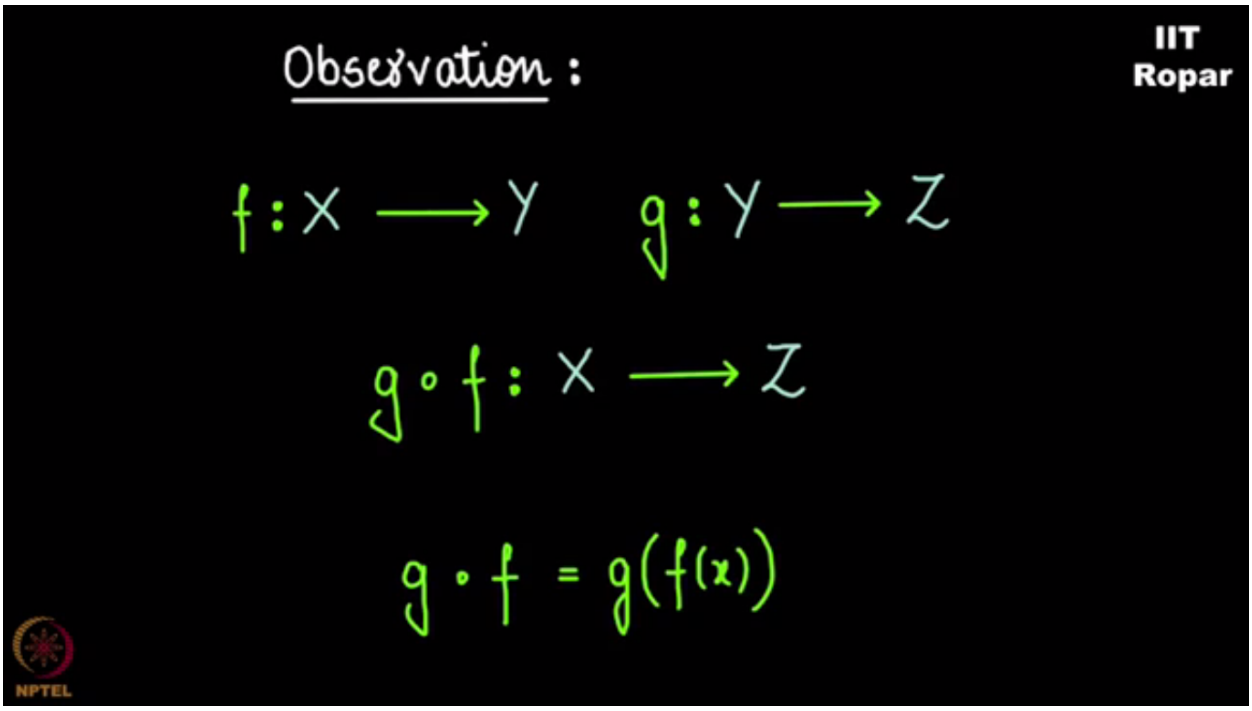


A straightforward observation, slightly abstract, but still straightforward an observation. If f is a function from X to Y and g is a function from Y to Z, then g.f will be a function from X to Z. Isn't that obvious? Let's see how.

f takes X to Y and g takes Y to Z and hence g.f, g.f always means apply f first and then g next, is a function from X to Z. Right?



Now note something, whenever you define g, you must define it properly. g cannot have values outside Y. It must have values within Y.