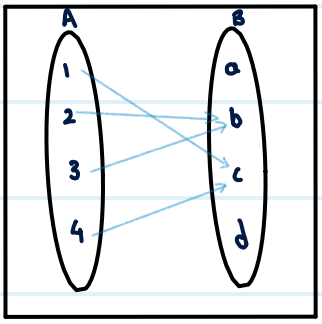
* Functions

$f : A \to B$

Domain = $\{1, 2, 3, 4\}$

Codomain = $\{a, b, c, d\}$

Range = $\{b, c\}$



* Special Types of Functions

One to One Function → sabke alag alag (Monogamy)

↳ Every element of A has distinct image in B

↳ Injective

Many to one function → cucks or Polygamy

↳ Two or more elements of A has same image in B.

Onto function [Surjective] → No lonely niggas allowed

↳ Every element in B has atleast one pre image in A

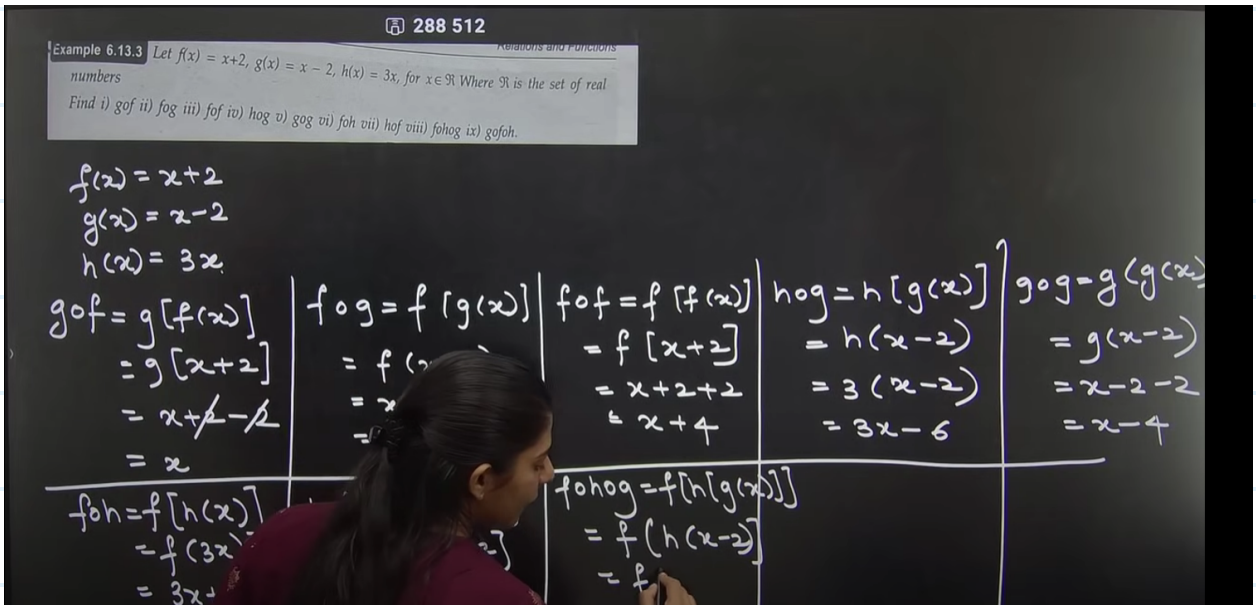
Into function → Single nums in Your Area

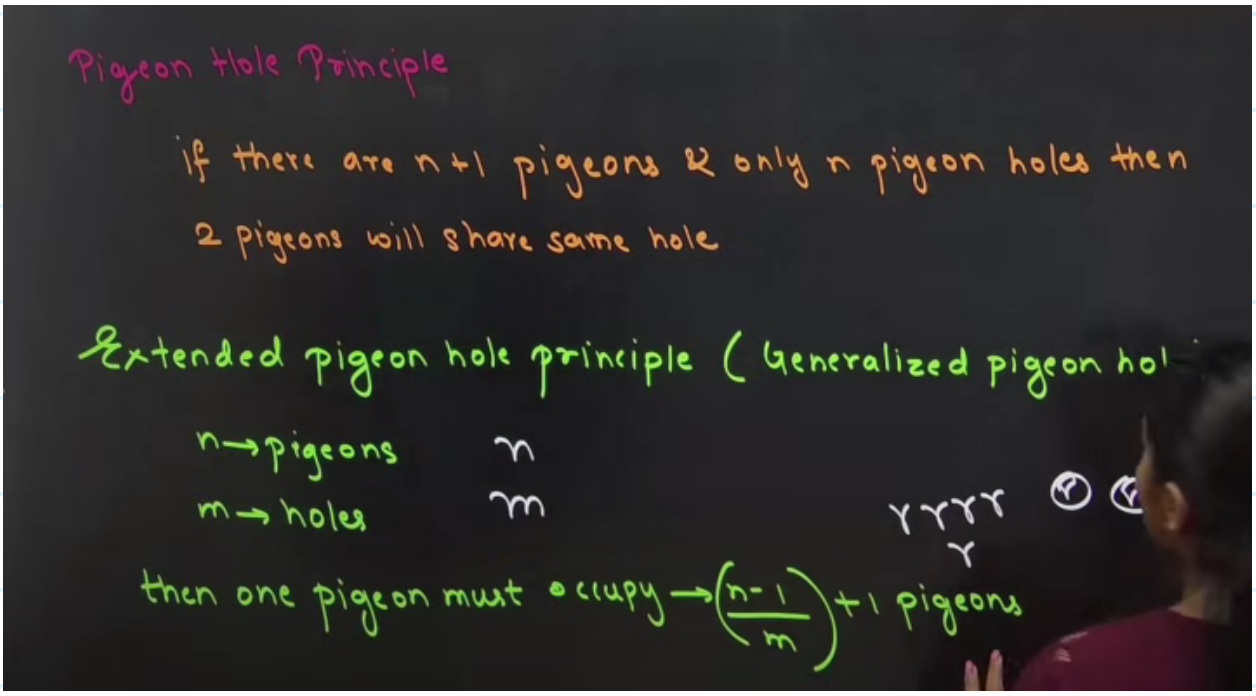
↳ Atleast one element in B having no pre image in A

One to One or Onto Function (Bijective)

↳ Both Injective & Surjective

↳ One to One & Onto




Pigeon hole Principle
if there are n+1 pigeons & only n pigeon holes then
2 pigeons will share same hole
Extended pigeon hole principle (Generalized pigeon hol
n → pigeons
m → holes
then one pigeon must occupy → (n-1/m) +1 pigeons