

Sets and relations

Hello guys, aaj hum baat karenge sets aur relations ke baare me. Me ye video 3 hisse me baatunga.

- Concepts / Cheez kya hai. Ye part sabse mazedar hoga aur isko samajhna zaroori hai
- Kis cheez ka kya naam hai.

Concepts

Set ka combination

Need an example with a time dimension s.t $A \times B \neq B \times A$

Relation

Toh ye ho gaye sets ka combination

Ab hum baat karenge relations ke baare me:

Agar aapke 2 set hain, maan lo $A = \{\}$ $B = \{\}$

aur aapke pass combination bhi aa gaya $A \times B$

ab aap ek rule bana sakte ho ye saare combination me se kuch chunne ke.

Ye ho gaya relation

Aur ye hum diagram me represent kar sakte hain aise.

Ye set A se element naye set me kaunsa element ban gaya

\$note: Use meaningful naming for sets.

Functions

Ab hum baat karenge functions ki:

Maths me function ek machine ki tarah hota hai:

Aap input dete ho machine ke andar aur nikalta hai doosra number

input number ko aap x bula sakte ho, aur output ko y. Lekin idea yahi hai ki andar ek number jata hai aur bahar nikalke doosra number aata hai

Ab ye machine kholo toh iske andar hai iska rule. input ko kis tarah badalke output nikalta hai

Lete hain ek simple sa machine - Jo kuch nahi karta

$x \rightarrow$ ye bhi hai function

Aur ek simple sa machine jo kuch bhi karo, same cheez karta hai. Kuch log hai duniya mai aise

$x \rightarrow 5$

Machine kuch aur bhi kar sakte hain, e.g

$x \rightarrow x + 1$.

Koi bhi number dalo, usko ek jodke bahar aaega

$x \rightarrow x * x$

etc. etc

Aap koi bhi rule bana sakte ho aur woh hoga aapka function.

Isko graph me kaise dikhate hain?

Hum koi ek number lete hain, aur dekhte hain uska output kya hai

maan lo 0 bheja. 1 nikla -1 bheja. 0 nikla 1 bheja. 2 nikla

x axis pe hum lenge input aur y axis pe output. Toh aapke points aise banenge. Aur ye points jodke me machine ka graph aise banega.

Footnotes

Mention and call out bullshit