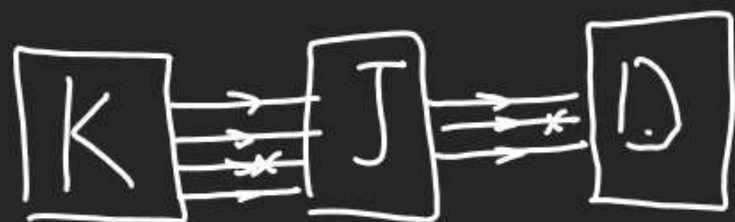


Permutation & Combination

- (1) Day 1 - Day 10
hrqs aT4hona chaiye.
- (2) Not Reply if Qs. is asked in Betⁿ.
- (3) No man Ke laddu
Jesa mene btaya
Vesa Kr iye hlo.
- (4) DPPs nly
- (5) DPP is only 3 Qs
(correct then ymene V. good
2 Qs good, 1 Qs → OK, 0 Qs → Grad heda
≥ 3 Qs → Next DPP is response)
- (7) (hapter finish hone K
bad hi Judge Karen
Compare with your friends)
- (8) Doing all up of any IIT
material is a hoax.
- (9) Pls stick to Pnc (only
one Pnc is started.)
- (10) Irregular →

KJD Model.

① I H M W a person can go to delhi from Kota via J pr.

$$4 \times 3 = 12$$

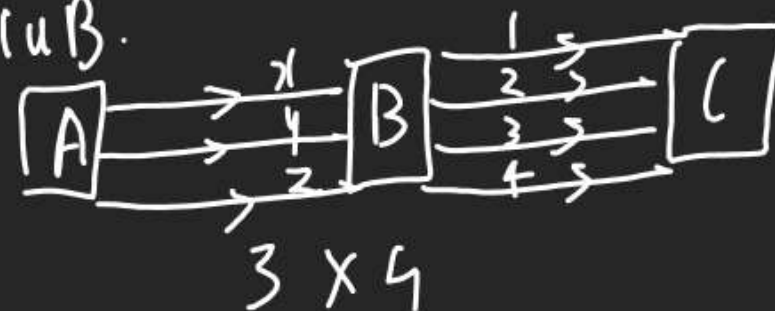
(2) I H M W a person can go to delhi from Kota & come back to Kota again

$$4 \times 3 \times 3 \times 4 = 144$$

(3) I H M W a person can go to Delhi from Kota & come back to Kota from a different Path.

$$4 \times 3 \times 2 \times 3 = 72$$

Q There are 3 ways to travel from A to B & 4 ways to travel from B to C. I H M W a person can travel from A to C via B.



(x,1) (x,2) (x,3) (x,4)

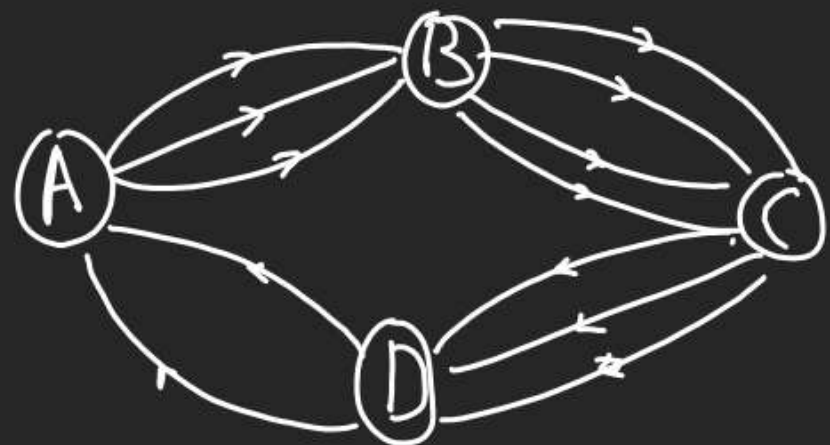
(y,1) (y,2) (y,3) (y,4)

(z,1) (z,2) (z,3) (z,4)

12 options.

Multiplication Principle

:-



Q In HMM a person can travel from A to C via B or via D.

$$3 \times 4 + 2 \times 3 = 18$$

A → B → C or A → D → C

Station Model.



In HMM a person from Platform 1 to Plat. 3

$$6 \times 5 = 30$$



In HMM a person can go to either Pl. 1 or Pl. 3?
 $6 + 5 = 11$ ways

Q 12 Students compete for a Race
No. of ways in which 1st 3 places can be taken.



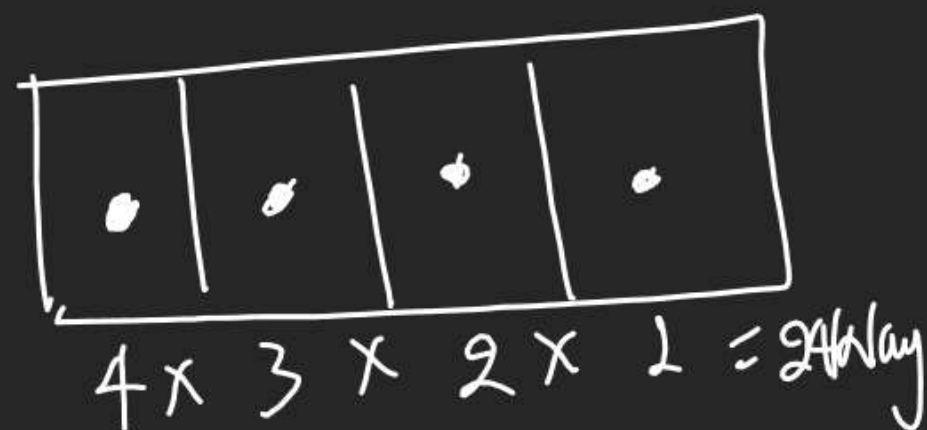
1 Place is for → ${}^{12}C_1 = 12$

2nd → ${}^{11}C_1 = 11$

3rd → ${}^{10}C_1 = 10$

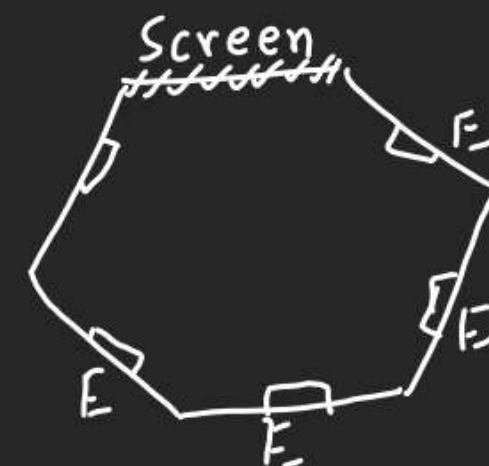
$$12 \times 11 \times 10$$

Q There are 4 Books one each of Phy, chem, math & Bio. These books need to be arranged in 4 Boxes. In HMW they can go.
 {only one book in one box can be accommodated}



B P C M
 B C P M
 B M P C
 B C M P
 B P M C
 B M C P
 P B C M
 P B M C
 P C B M
 P C M B
 P M C B
 P M B C

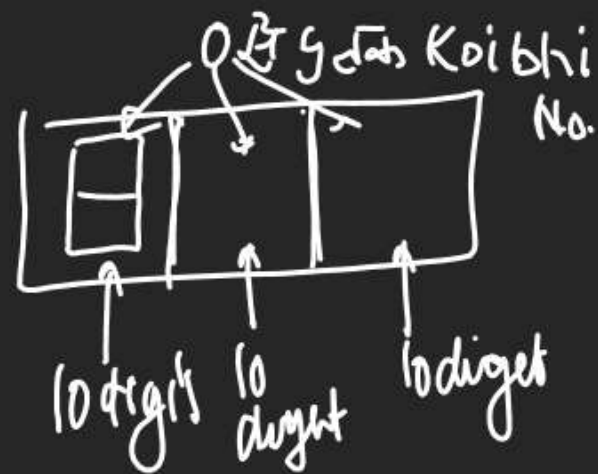
Q There are 4 ways to enter in cinema hall & 5 ways to exit. In HMW a student can watch a movie.



$$4C_1 \times 5C_1$$

$$4 \times 5 = 20 \text{ ways}$$

Q A Customer forgets a
3 digit code for ATM
Pin. Find the Largest
Possible No of trials
to obtain correct code.



$10C_1$

$10 \times 10 \times 10 = 1000$ (A Hembat diti
1000 different Pin Possible.