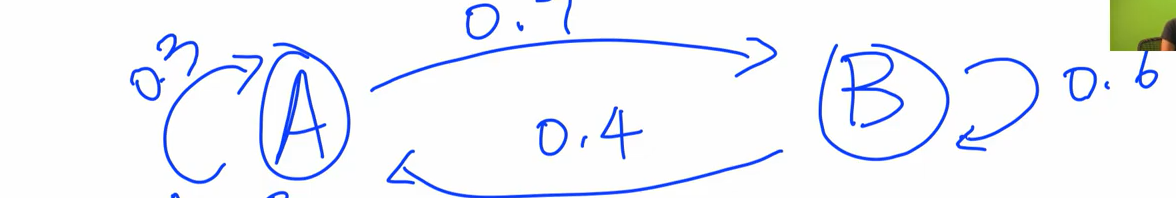
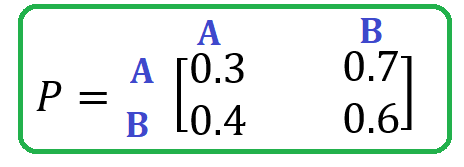
# Q: Markov Chains – Finding Stationary Distributions



**SOLUTION**

***STEP-1: Write the Transition Matrix P***



***STEP-2: Write a row vector equation***

Multiply 10 on both sides with equations (1) and (2)

***STEP-3: Put in summation equation***

**Put the value of in equation (5), we get :**

***STEP-4: Finally calculate the Stationary Distribution***

From Equation (1) ,

From Equation (2),

From Equation (3),

Put in sum formula