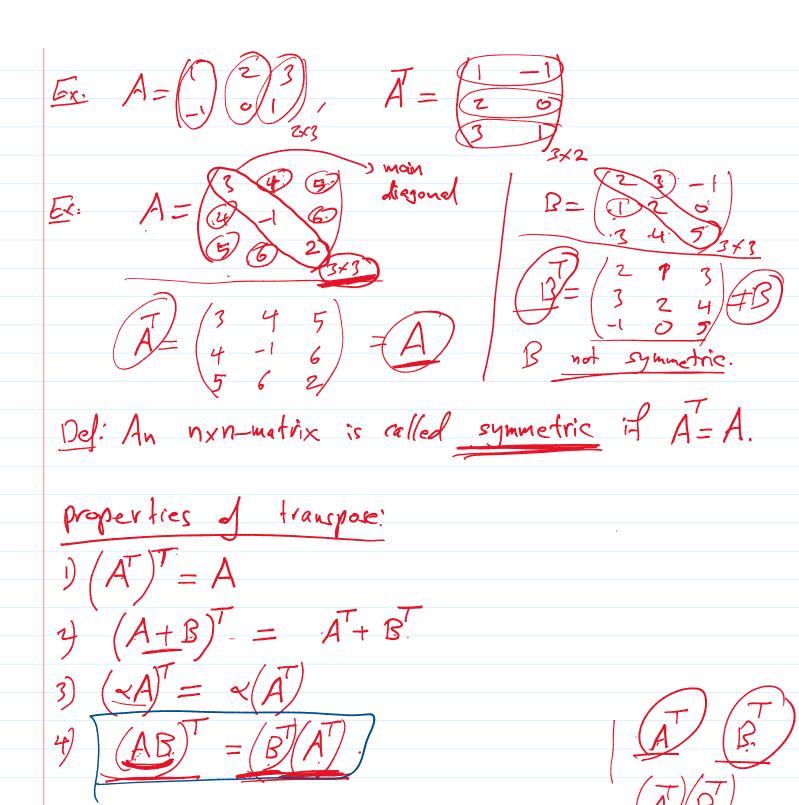


6) 
$$(AB)A = ABA$$
  
7)  $(AB) = (AB)B = A(AB)$ .  
8)  $(A+B)A = A+BA$ .

xy=yx.
a(b+c)=ab+ac.

Transpose of a matrix.

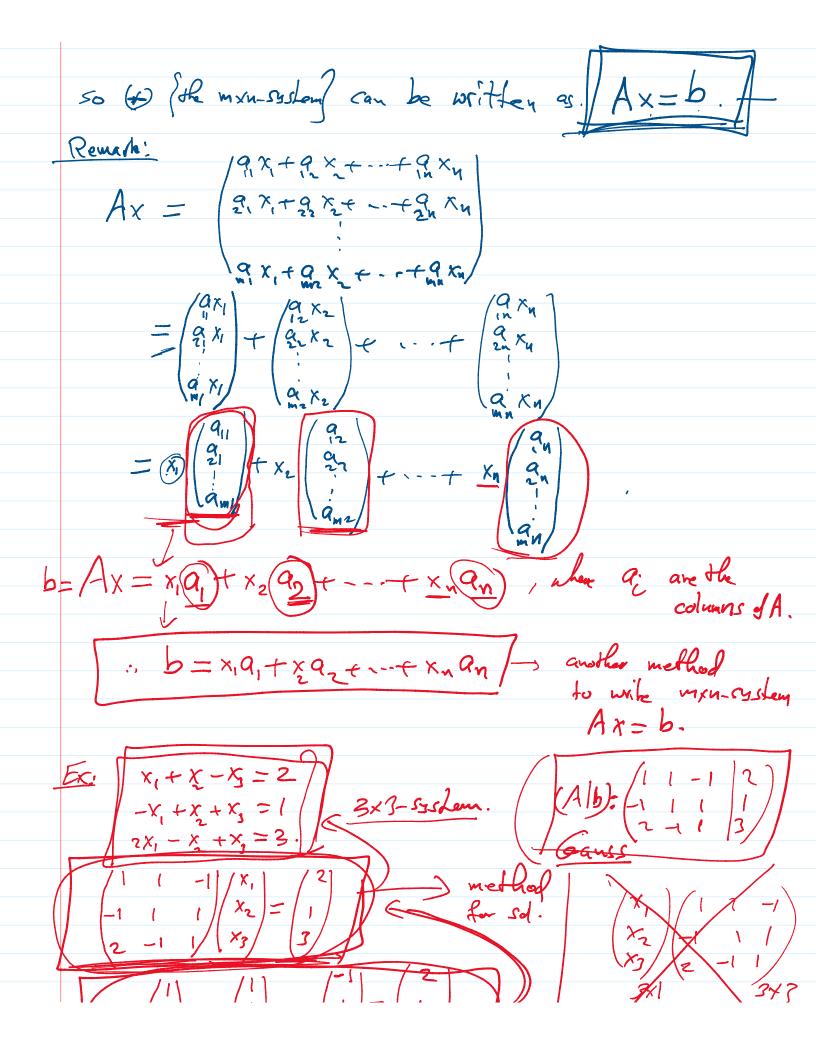
Del: Let A be mxn-matrix, we define the transpose of A as the matrix C, where  $A = C = (C_{ij})_{n \times m}$ , where  $C_{ij} = q_{ij}$ .

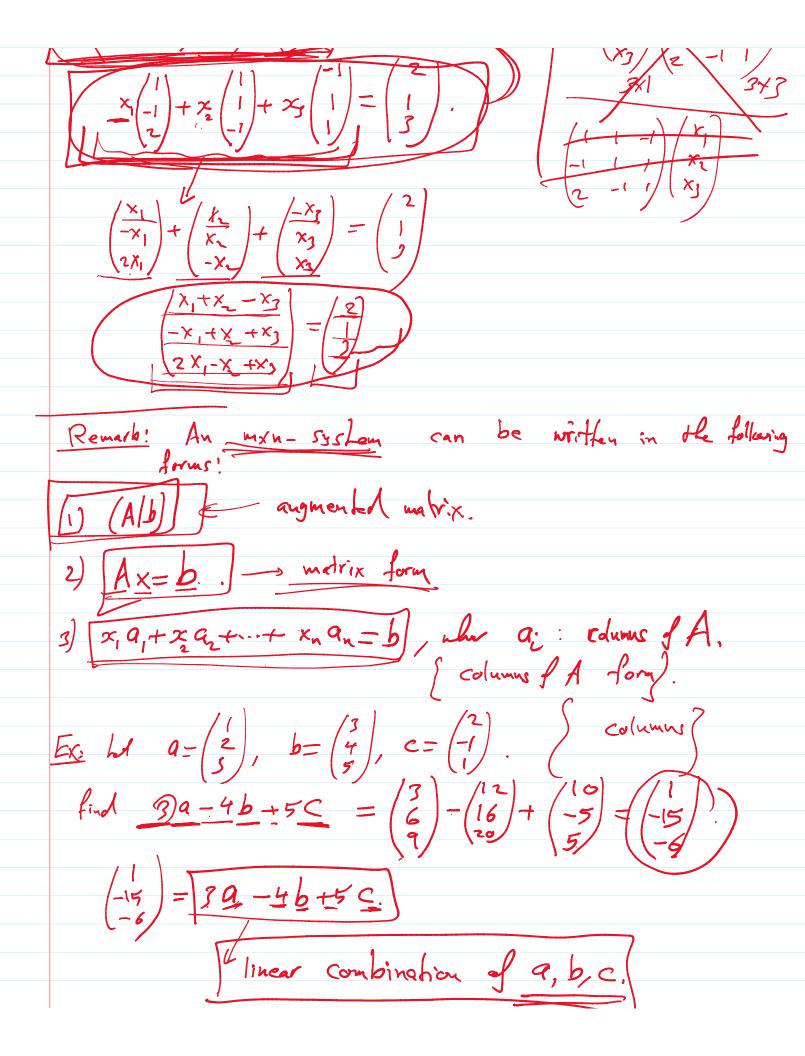


Ex: Let A be mxn-matrix, Let C=(A)(AT)
Is C) symmetric.?

:. C is symmetric

~ Also AA is symmetric (AA) = A. (AT) = A.A.





l'Inear Combination of 9, b, c.