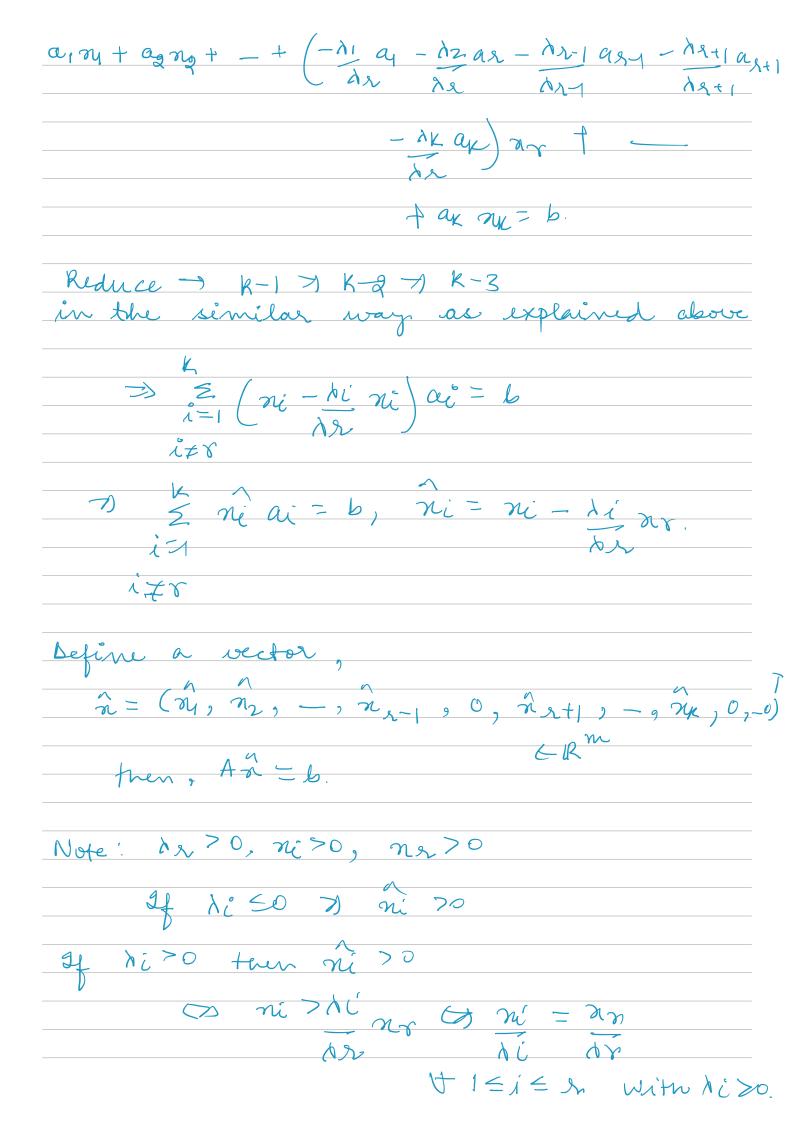
```
let [a, -, ak? mx, be such column
vectors
        \sum a_i n_i = b, n_i > 0
Case 1: let {a1, -, ax} be LI in Rm.
       70 \quad K \leq m
  k=m
                  K <m
B=[a1, -, ax]
                  B=[a1, -, ak, -
is a basis
matrix invertible
n is BFS.
             columns from A
S.t. B' exist. This we can
             do as rouk (A) = m
               > n is BFS.
Case 2: let {a1, a2, -, ax} be LD in 12m
       scalar 1, -, 1k, not all zeros
S. D.
        let 12 >0 for some r
                         1 = 2 = K.
   Put this on in eqn ().
```



We choose index sot.
$\Rightarrow ne = \min \left\{ \frac{ni}{\lambda i}, \frac{n}{\lambda i}, \frac{n}{\lambda i} \right\}$
with the choice of index n , we will make sure that ni -o.
3 n is jeasible for (LP).
replaced with n.
So, either n'is BFS or not
(in this case we can find it as in case)
· Continue the process, we land up at BFS.