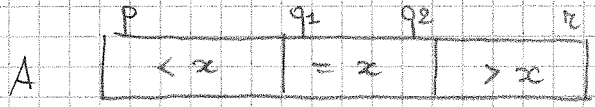
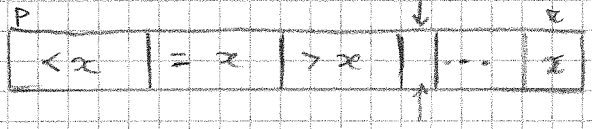
TriPartition (A, p, r)

ritorna q_1 e q_2 che delimitano la zona di elementi uguali al pivot

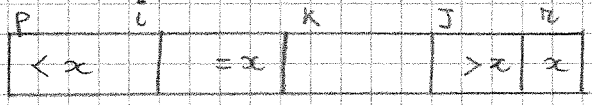


come procedere?

Nota: se mantengo tre zone contigue ho problemi ad aggiornarle



meglio utilizzare il seguente schema



$A[p, i] < x$

$A[i+1, k-1] = x$

$A[j, r-1] > x$

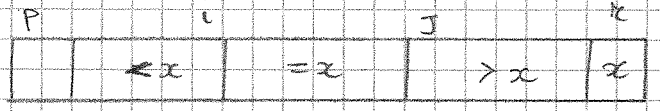
```
TriPorchiam (A, p, q)
    x = A[r]                    // pivot

    i = p-1
    k = p
    J = r

    while  k < J
        if  A[k] < x
                i++
                A[i] ↔ A[k]
                k++
        else if  A[k] > x
                J--
                A[k] ↔ A[j]     // nam incremento k!
        else
                k++

    A[j] ↔ A[r]

    return (i+1, J)
```




```
QuickSort (A, p, r)
    if  r-p > 1
        q1, q2 = TriPorchiam (A, p, r)
        QuickSort (A, p, q1-1)
        QuickSort (A, q2+1, r)
```