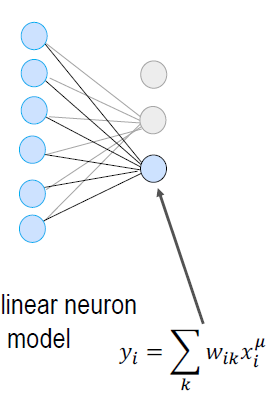
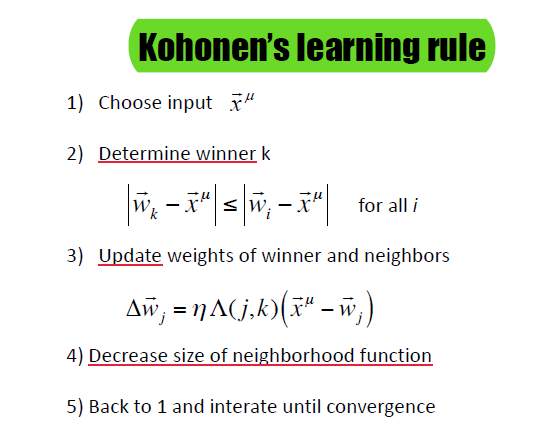
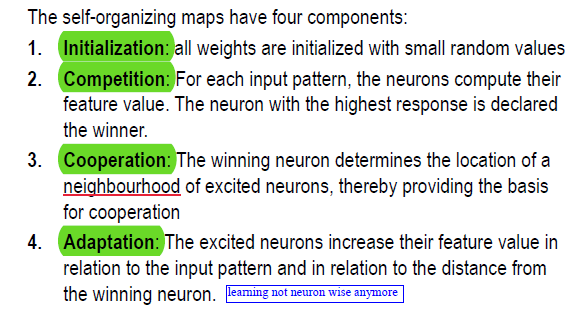
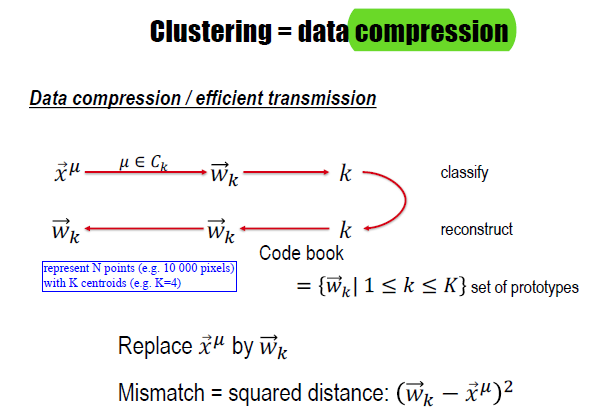
**Q1)**   
Just one layer. Input xmu = [xmu\_1 … xmu\_i … xmu\_N] arrives and every for each cluster k we compute: y\_k = sum(w\_ik \* xmu\_i for i=1..N). The output layer contains the y\_k which are the output neurons which map the input data xmu into a the output neuronal space.



**Q2)**

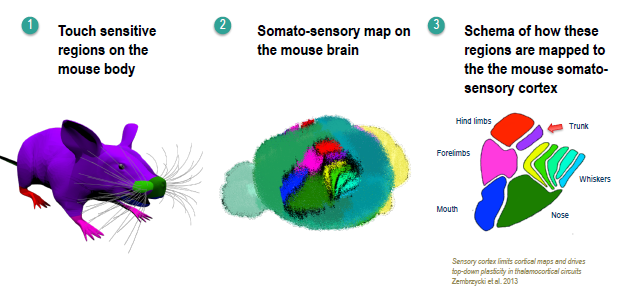


**Q3)**



**Q4)**

Topographic map: input are signals (auditory, visual etc.) and are mapped into a cortical (neuronal) space w.r.t their features (frequency, orientation etc.).



**Q5)**

almost direct using Oja’s rule which is a modification of the standard Hebb's Rule

