Quiz\_Lecture12

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Q: How to revise the EM algorithm, if we want to estimate the parameters based on MAP rather than MLE?

MLE: 

MAP: 



So, 

We don’t need to change the E step. Still use X and current θ to calculate .

In M step, use MAP instead of MLE：



Answer:

Iterate until convergence:

E Step: Use X and current  to calculate .

M Step: Replace current  by

