Take Home Project #1 Total points: 100 Due: April 21

Write a R program to compute EAP estimators for a group of 500 students.

You need to evaluate the estimation accuracy by looking at Mean Squared Error and Bias.

Hint: You may follow the following steps:

1. Create two arrays for 31 thetas values and the corresponding density weights. We assume the prior is N(0,1).
2. Build a function eap(a, b, c, u, n, xk, wxk, nqt) where
   1. a,b,c are arrays for item parameters, and n is number of items
   2. xk and wxk are the arrays for thetas and their weights
   3. nqt is number of pints for theta (you can set 31)
3. The item parameters and item responses will be provided by me.
4. You need to print the results to a file called thetahat.txt