Homework #4 CS8803 - PGM **Student name: James Hahn** Probabilistic Graphical Models

## Problem 1

Yes. Since all data was drawn from a distribution parameterized by  $\theta^0$ , and we are measuring the likelihood of the data given those parameters (i.e. maximum likelihood), then since the loss is the log-likelihood of the data, the data will be most likely at the parameters  $\theta^0$  which parameterize the distributions. As such,  $\theta^0$  will be an optimum.

Homework #4 Student name: James Hahn

Homework #4 Student name: James Hahn