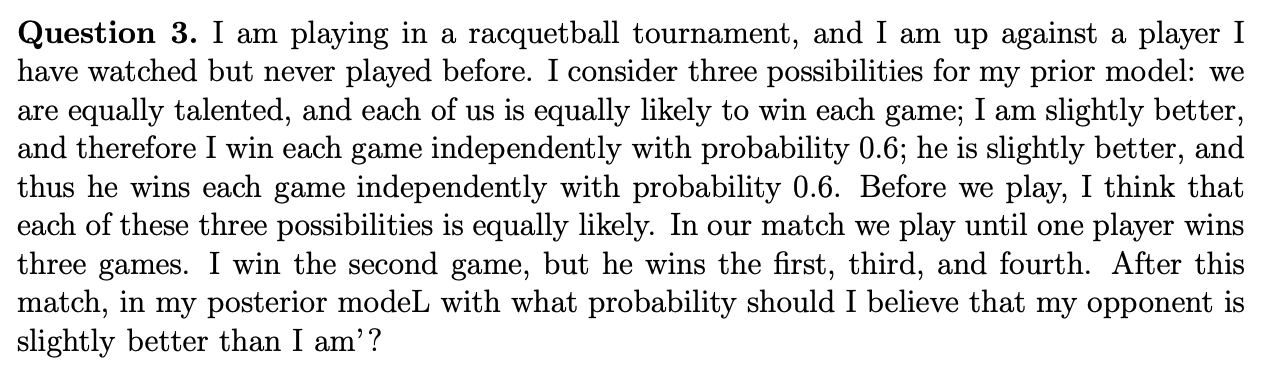
**ST3009 – Statistics**

**Regression Questions**

**Linear Regression**



Use Bayes Rule. Let E be the observed set of wins and let F be the event that the opponent is better than me. By Bayes,

Now, prior to the wins the probability that the opponent is better than me is:

Since it is equally likely to be better or worse than me also.

We can calculate P(E) using marginalisation:

Where G is the event that we are equally talented and H is the event that I am more talented.