1. Let us assume that you are trying to use a 4-fold cross validation to test the generalizability of a model where reaction time, Y_{rt}, is associated with subjective motivation, X_{mot}, across a sample of 100 participants (i.e., $Y_{rt} = \hat{\beta}_0 + \hat{\beta}_1 \hat{X}_{mot}$). You also know that reaction time is substantially impacted by age. You have access to age as a categorical variable, X_{age}, in ranges of decades (e.g., 10-20 yrs old, 20-30 yrs, old). How would you best keep the influence of age from biasing the results of your 4-fold cross validation?

2. While cross validation is largely used to evaluate test error, a measure of prediction accuracy, how can cross validation be used to ask an inferential question about your data?