

1. (5 points) What is machine learning? How does it work? Give some examples of machine learning in the world today.
2. (5 points) What is the difference between L1 and L2 regularization?
3. (5 points) What is the tradeoff that regularization attempts to solve? How is this related to overfitting?
4. (5 points) Machine learning is all about finding the best ____, and econometrics is all about finding the best ____.
 - a. $\hat{y}; \hat{y}$
 - b. $\hat{\beta}; \hat{y}$
 - c. $\hat{y}; \hat{\beta}$
 - d. $\hat{\beta}; \hat{\beta}$