$\begin{array}{c} {\rm Yale~University} \\ {\rm Department~of~Statistics~and~Data~Science} \\ {\rm Quiz~1} \end{array}$

STATISTICS 365/565

Issued: 02/10/2021 Due: 02/12/2021

Notes: You will have two hours to solve this problem. You cannot discuss this quiz with anybody at any time before 02/12/2021 (inclusive). You *can* use notes, online resource, videos, etc... Just nothing adaptive on which you can ask a direct question and get it answered (e.g. no stackoverflow/slack/asking a friend/etc...).

Submission: You will submit this to gradescope as a PDF.

Linear regression: Recall the linear regression model of linear weights: $\mathcal{F} = \{f \mid f(x) = \theta^T x\}$. What is an interpretation of the weights? You can illustrate with an example. At most three sentences.