

HW 8

Problem 1. Do Question 3.11 in the text.

Problem 2. Do Question 3.13 in the text.

Problem 3. Let A be $m \times n$ with singular values $\sigma_1 \geq \cdots \geq \sigma_n \geq 0$. Show that the singular values of

$$\begin{bmatrix} I_n \\ A \end{bmatrix}$$

are $\sqrt{1 + \sigma_j^2}$ for $1 \leq j \leq n$.