

Assignment 8

1. Assuming $a_i > 0, p \geq 1$, give the solution of the problem

$$\min_{x \in \mathbb{R}^N} \left\{ \sum_{i=1}^N \frac{a_i}{x_i} : x > 0, \sum_{i=1}^N x_i^p \leq 1 \right\}$$

2. (a) Explain what the kernel trick is.
(b) Explain how to apply kernel trick to generalize the dual SVM problem.