

Homework 5

Due: Monday, October 20

Consider the following set of points in \mathbb{R}^2

$$\{(1, 2), (-4, -2), (3, 3), (5, 6), (-3, -1), (-5, -3), (5, 4), (6, 8), (-5, -2), (-1, -2)\}$$

- a Cluster these points using single linkage (nearest neighbor) clustering using the ℓ^2 norm. Draw a dendrogram tree and interpret your results.
- b Repeat (a) using the cityblock option for distance in the `pdist` command. What norm is this? Why do you think it is called this?
- c Repeat (a) using complete linkage (farthest neighbor) clustering.