Exercise 5-1:

Create two examples where the obtained value $r(C)$ by the algorithm is close to $2r(C^*)$. Create another two examples where the obtained value $r(C)$ by the algorithm is close to $r(C^*)$. There is no constraint condition on the location of each center.

Exercise 5-2:

Create two examples where the obtained value $r(C)$ by the algorithm is close to $2r(C^*)$. Create another two examples where the obtained value $r(C)$ by the algorithm is close to $r(C^*)$. There is the following additional constraint condition: Each center should be selected from the given sites.

Exercise 5-3

Design a method to select the first site in the center selection algorithm (instead of random selection).