This is the first part of one question that will be on the Final Exam. I may post another partial exam-question and will announce that in class if I do.

Read section 11.2 in the text on the Center Selection problem.

As in the Greedy Algorithm that works, let $C$ be the set of selected center points. If a point $s \in S$ is closer to point $i \in C$ than to any other point in $C$, then we say that $s$ is in the orbit of point $i$. Hence, the $k$ points of $C$ partition the points of $S$ into $k$ orbits.

The solution to the question on the final exam will rely on understanding the material in Section 11.2. The question will use the concept of an orbit.