**Assumptions used for Data Analysis:**

1. A given unit on the xy-plane is equal to 1 miles geographically.
2. The bus can house and charge 100 scooters at a given time.
3. The bus will travel between clusters at an average close to its maximum speed (50 mph).
4. Travel time between scooters within a given cluster is negligible.
   1. Thus, the time required to charge scooters via the bus is equal to:
5. A cluster is defined as a group of scooters within 0.4 radial units of the central point.

**Introduction:**

Scooters are a fast and energy efficient way of moving around a busy city landscape. They provide the consumers affordable and easily available transportation without adding to traffic congestion. The only problem with these scooters is the fact that they run on a finite energy supply stored within their batteries and must be charged in order to stay operational. In order to do so, the Xtern Xpress ridesharing service needs a efficient plan to charge scooters after consumers are done using them.

The scooter location and battery power data, given by the TechPointX team, was utilized in calculating the number of scooters within a given cluster and the subsequent battery power average of said clusters. The data of distance from each scooter to the mega charging bus was also calculated but later realized to be irrelevant to the findings of the evaluation.