3.

a. The concentration of profit is as follows. The min profit is -16469 and the max profit is 926595. The median value is just 39.7

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Min. | 1st Quantile | Median | Mean | 3rd Quantile | Max |
| -16469.2 | 4.2 | 39.7 | 508.6 | 156.7 | 926595.6 |

We classify customers into 4 groups according to profits and each group’s counts are as follows:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Profit | >500 | 50-500 | 0-50 | <0 |
| Customer Count | 982 | 2,790 | 3,453 | 2,094 |

We classify customers into 4 groups according to their theoretical win.

The group number of each group are as follows. We can see that group 1 and group 2 has less number of trips but longer trip than group 3 and 4.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Theoretical win | >100000 | 10000-100000 | 500-10000 | <500 |
| number | 1 | 2 | 3 | 4 |
| Customer Count | 11 | 79 | 3052 | 3963 |

For each



