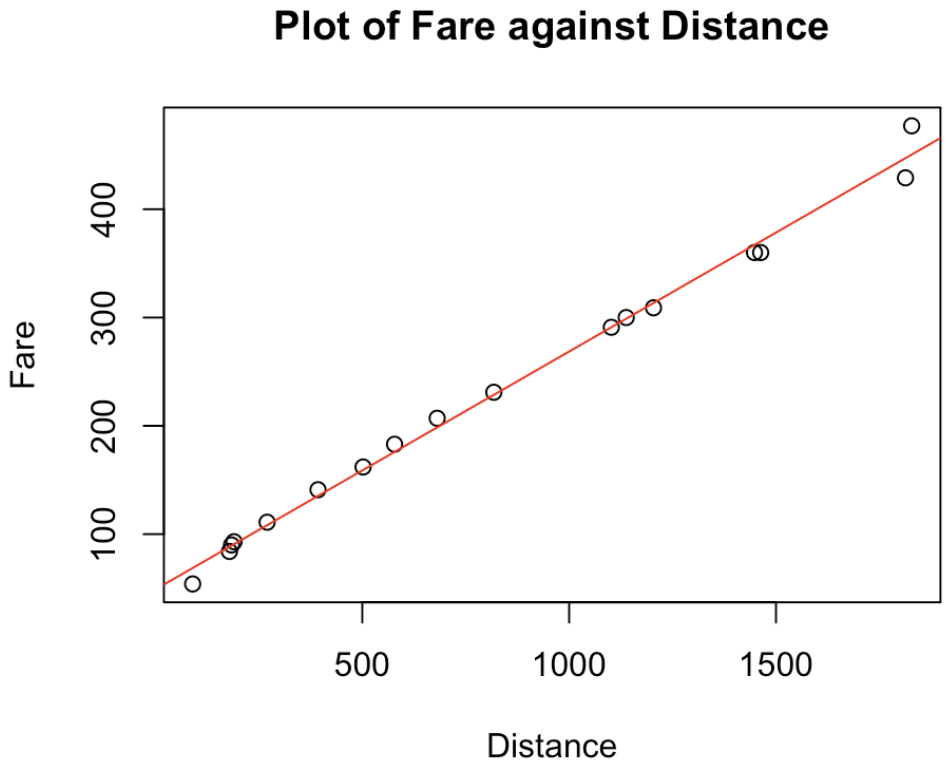
STAT 5120
Homework1
Yunlu Li

Question 1
(a) A simple linear regression appears reasonable for the data.



(b) Estimated slope = 0.2197. The average fare would increase by 0.2197 for each additional unit of distance.
Estimated intercept = 48.9718. The fare is expected to be 48.9718 when traveling 0 distance.
The regression equation is $y = 48.9718 + 0.2197x$

(c) The value of R^2 is 0.994. It means 99.4% of fare can be explained by the predictor (distance).

(d) The correlation is 0.9969765.

(e) The estimated value for the variance of the error terms is 10.41.