> ##b

> q1a\_fare <-lm(formula = fare ~ dist + pass + lead\_fare, data = air)

> summary(q1a\_fare)

Call:

lm(formula = fare ~ dist + pass + lead\_fare, data = air)

Residuals:

Min 1Q Median 3Q Max

-68.550 -5.583 -0.617 5.356 52.602

Coefficients:

Estimate Std. Error t value Pr(>|t|)

(Intercept) 20.1126884 1.0004112 20.104 < 2e-16 \*\*\*

dist 0.0041268 0.0006134 6.728 2.90e-11 \*\*\*

pass -0.0018615 0.0004272 -4.358 1.45e-05 \*\*\*

lead\_fare 0.8410101 0.0063028 133.435 < 2e-16 \*\*\*

---

Signif. codes: 0 ‘\*\*\*’ 0.001 ‘\*\*’ 0.01 ‘\*’ 0.05 ‘.’ 0.1 ‘ ’ 1

Residual standard error: 10.29 on 996 degrees of freedom

Multiple R-squared: 0.9656, Adjusted R-squared: 0.9655

F-statistic: 9312 on 3 and 996 DF, p-value: < 2.2e-16

From the result of summary of mode fare, the t value of lead fare is significant at the 5% level. Thus there is significant evidence AGAINST of a nonlinear effect of lead\_fare on average fare, in the presence of dist and pass.