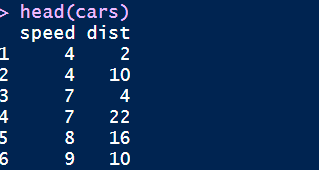
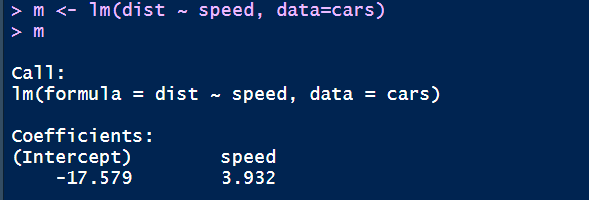
# Statistical models 🡪

head(cars)

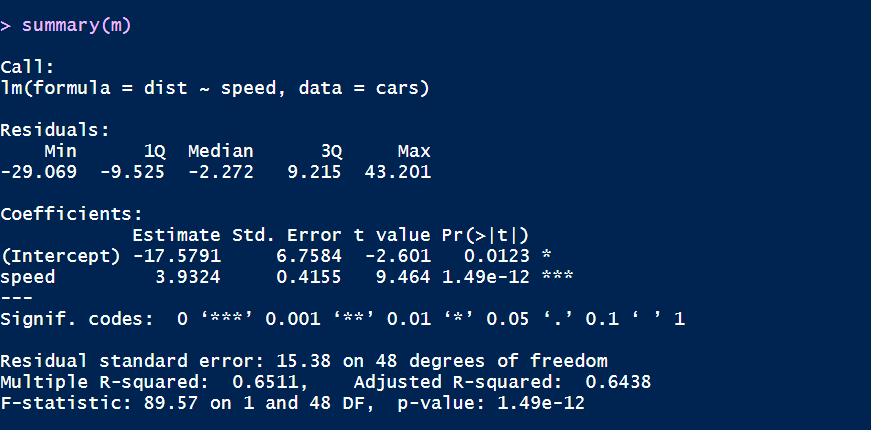


m <- lm(dist ~ speed, data=cars)

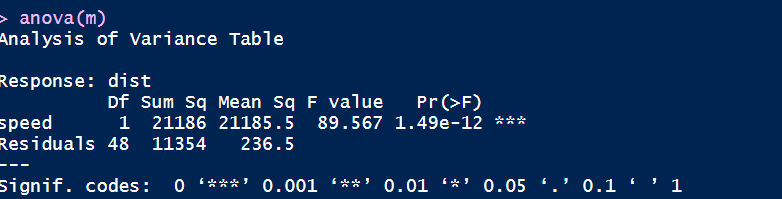
m



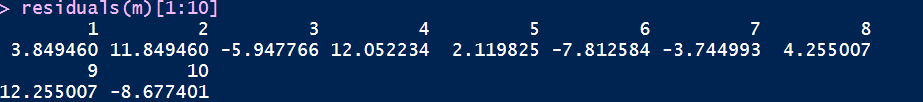
summary(m)



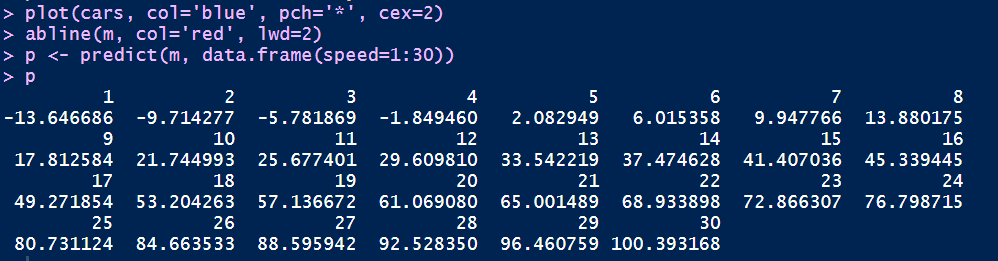
anova(m)



residuals(m)[1:10]

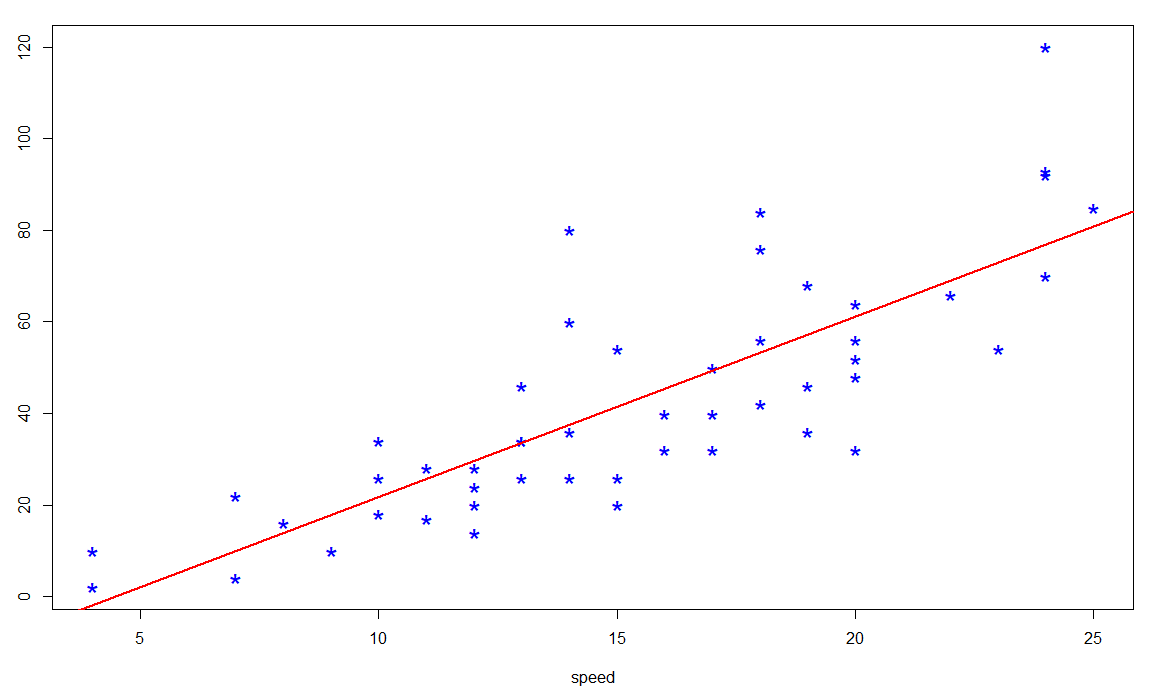


p <- predict(m, data.frame(speed=1:30))

p

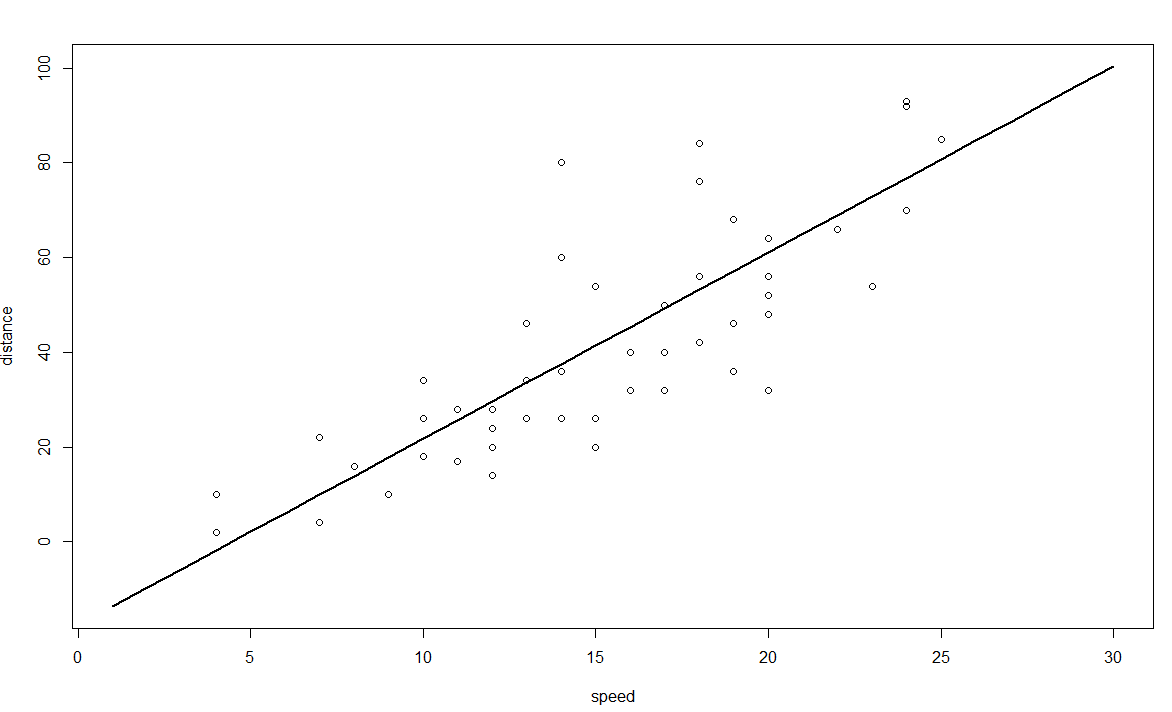
plot(cars, col='blue', pch='\*', cex=2)

abline(m, col='red', lwd=2)



plot(1:30, p, xlab='speed', ylab='distance', type='l', lwd=2)

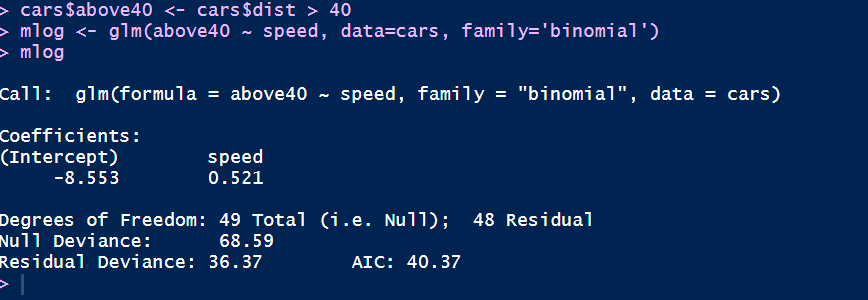
points(cars)



cars$above40 <- cars$dist > 40

mlog <- glm(above40 ~ speed, data=cars, family='binomial')

mlog



p <- predict(mlog, data.frame(speed=1:30), type='response')

plot(cars$speed, cars$above40)

lines(1:30, p)

