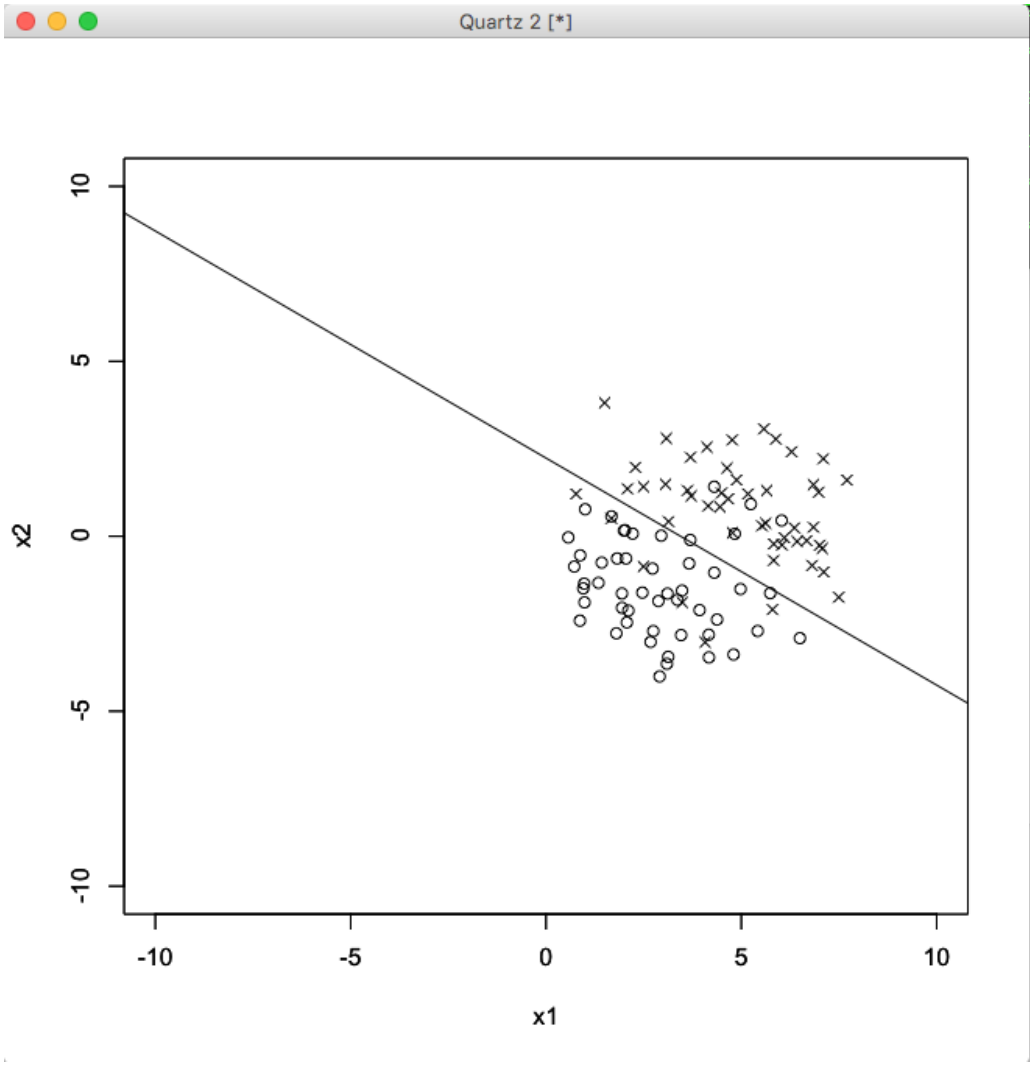
Q1

c)



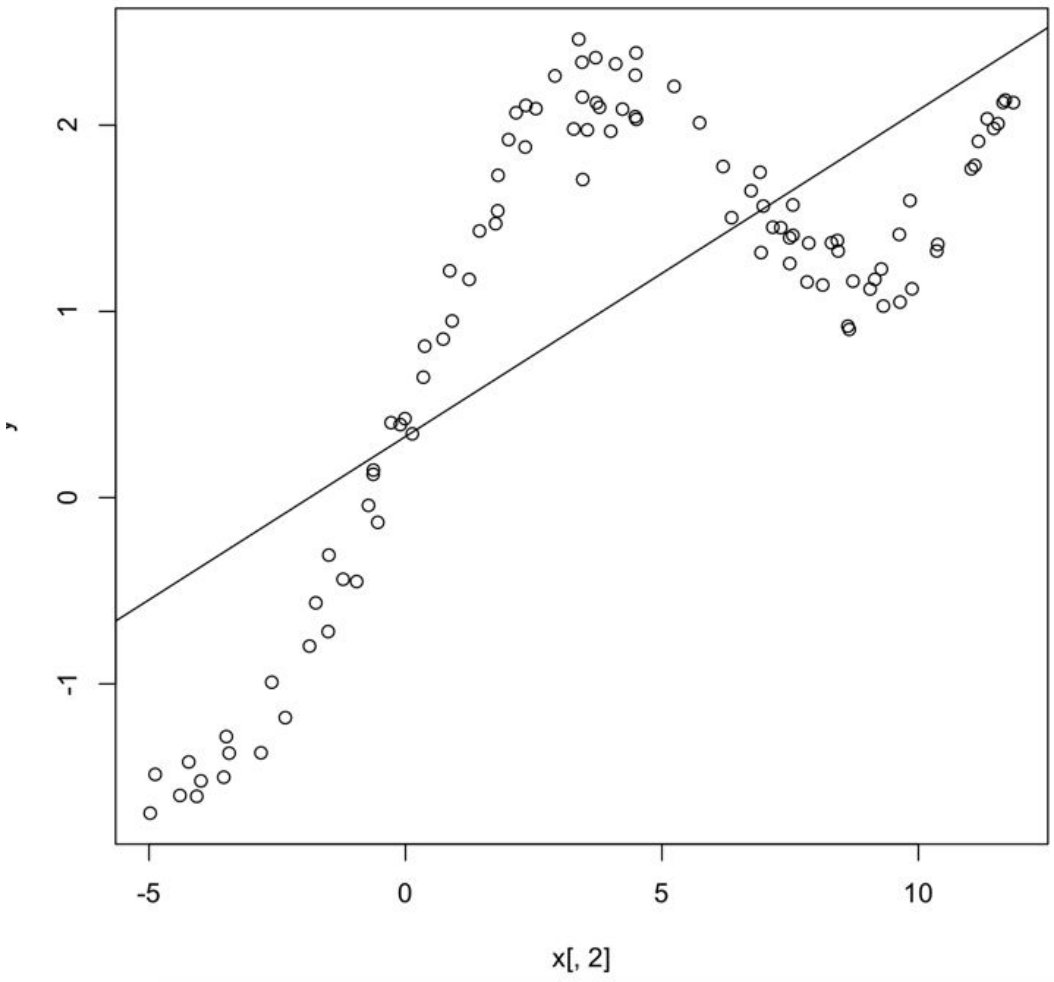
Solution:
[-2.6205115971780124, 0.7603715358970732, 1.1719467415657858]

Plot:
q1x = read.table('/Users/kevinstumpf/Documents/Stanford Lectures/CS229/Problem Sets/PS1/Q1/q1x.dat')
q1y = read.table('/Users/kevinstumpf/Documents/Stanford Lectures/CS229/Problem Sets/PS1/Q1/q1y.dat')
> q1x$key = 1:nrow(q1x)
> q1y$key = 1:nrow(q1y)
> library(plyr)

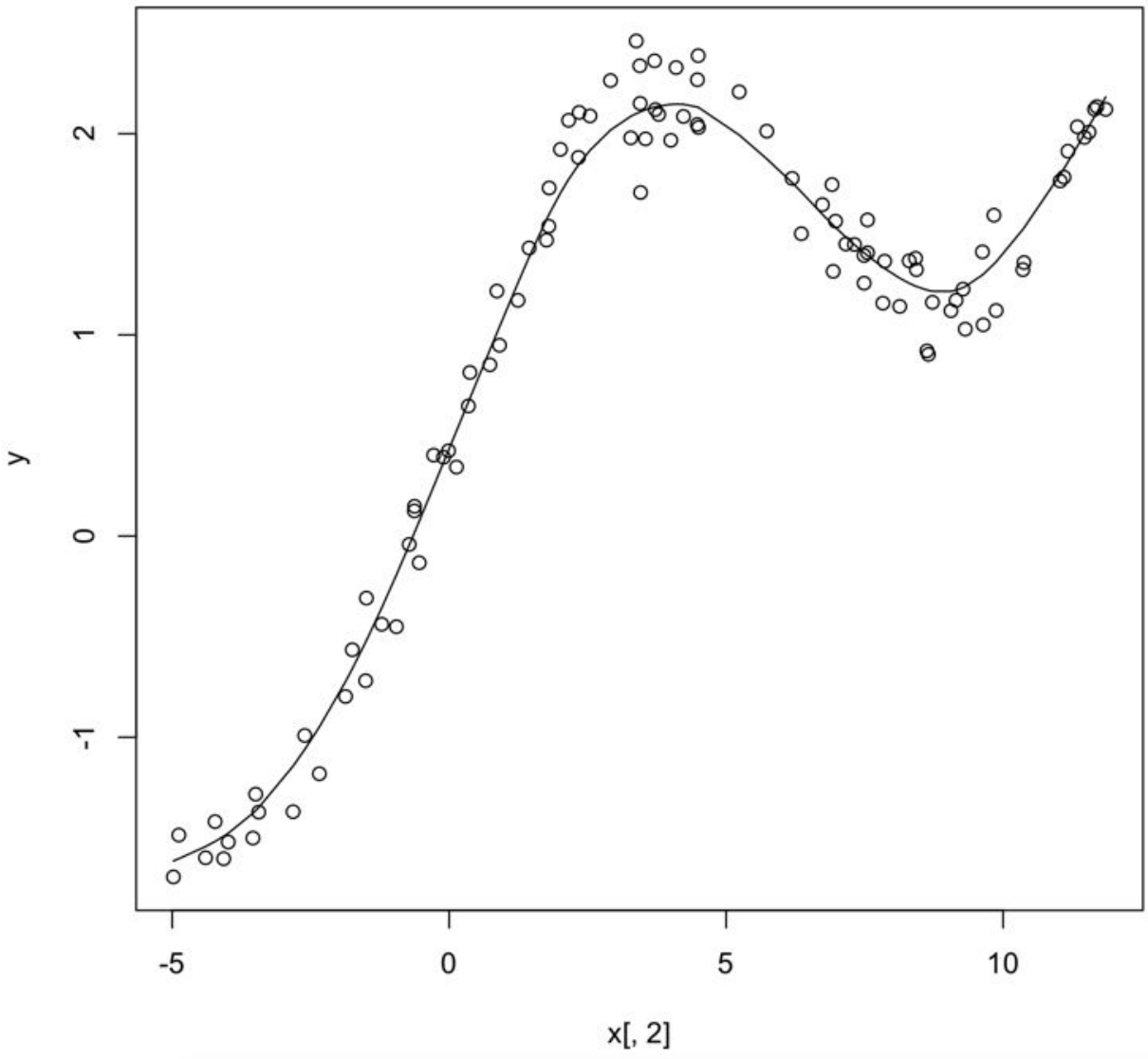
```
> merge(q1x, q1y, by="key")
> q1=rename(q1, c("V1.x"="x1", "V2"="x2", "V1.y"="y"))
> intercept=-2.6205115971780124
> theta1=0.7603715358970732
> theta2=1.1719467415657858
> plot(x2 ~ x1, data=q1Pos, xlim=c(-10,10), ylim=c(-10,10), pch=4)
> par(new=TRUE)
> plot(x2 ~ x1, data=q1Neg, xlim=c(-10,10), ylim=c(-10,10), pch=1)
> abline(-intercept/theta2, -theta1/theta2)
```

Q2

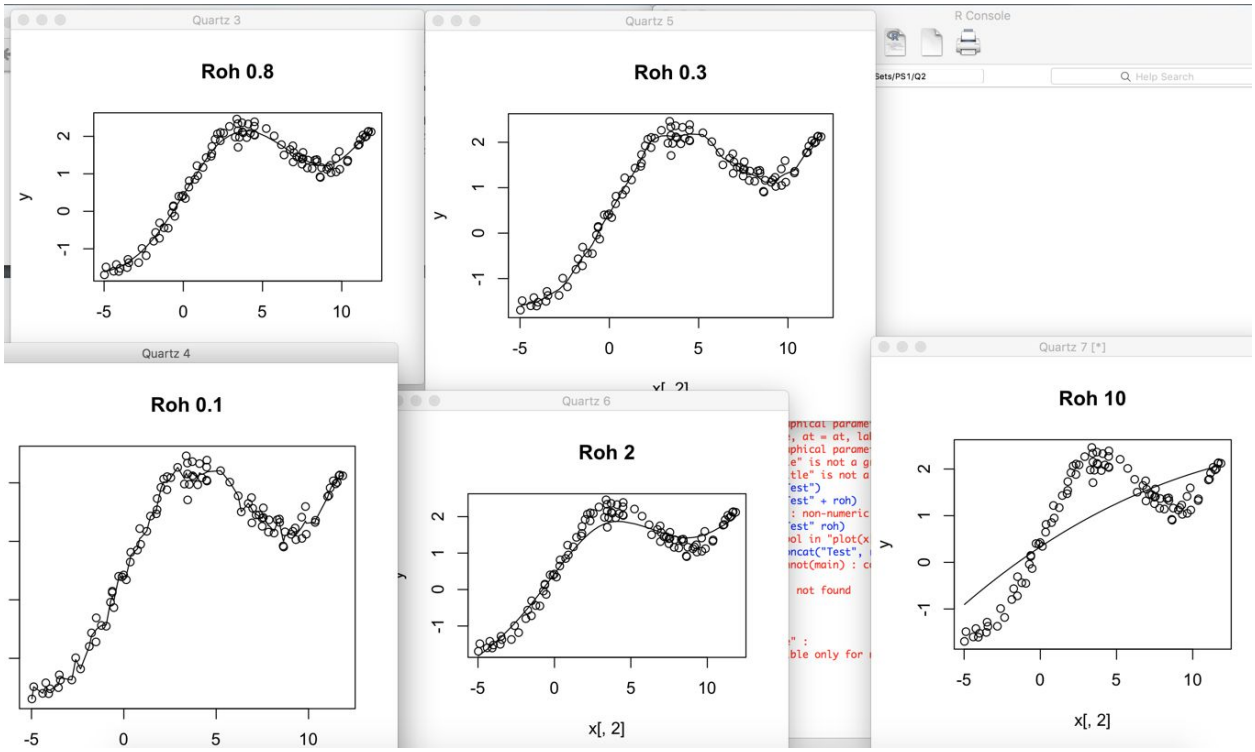
d) Part i



Part ii



Part iii



=> Larger roh => More like non-weighted regression