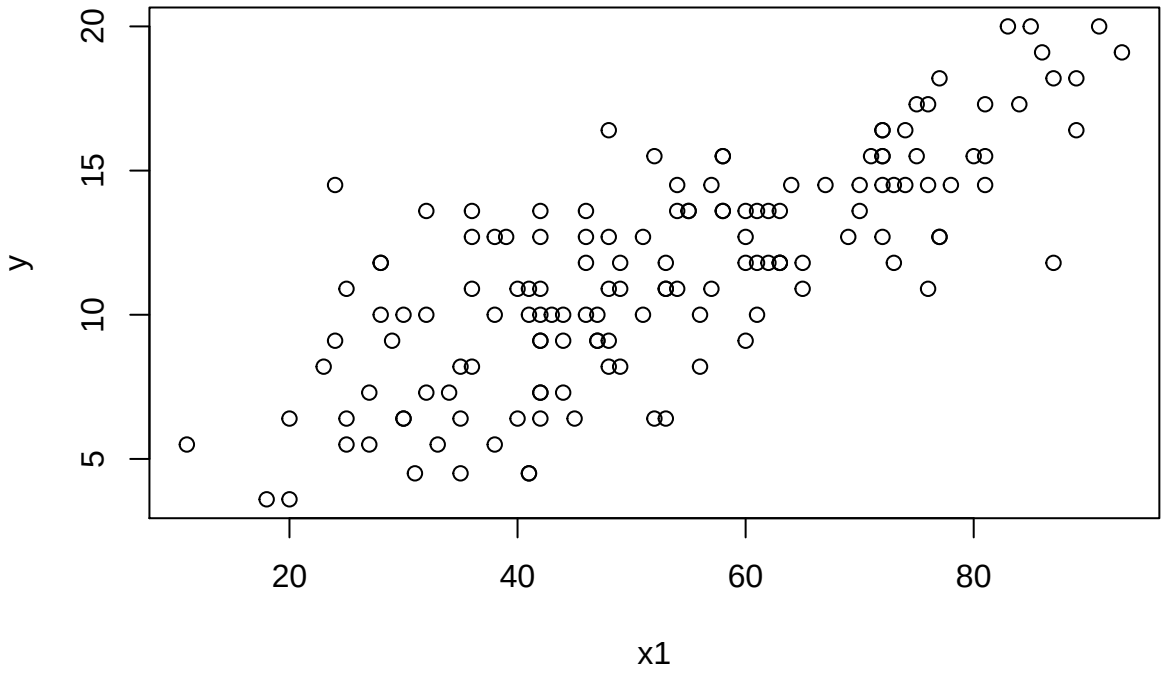
```r
# load data
rc.df = read.table("data.txt", header = TRUE)
```

```r
# plot data
plot(
    rc.df$resp,
    rc.df$var2,
    type = "p", xlab = "x1", ylab = "y"
)
```




```r
# fit model and view model summary
rc.lm = lm(resp~var2, data = rc.df)
summary(rc.lm)
```

```
##
## Call:
## lm(formula = resp ~ var2, data = rc.df)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -39.980  -6.471   0.826   8.575  33.242
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept)   9.0845     3.2204   2.821  0.00547 **
## var2          3.7859     0.2647  14.301  < 2e-16 ***
## ---
```

```
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 12.05 on 144 degrees of freedom
## Multiple R-squared:  0.5868, Adjusted R-squared:  0.5839
## F-statistic: 204.5 on 1 and 144 DF,  p-value: < 2.2e-16
```

```r
# residual plot
plot(fitted.values(rc.lm),
     residuals(rc.lm),
     xlab = "Fitted Values", ylab = "Residuals",
     main = "Residual Plot",
     sub = "lm(y~x2)")

abline(a = 0, b = 0, lty = 2, col = "red")
```