

Exercise 6

Your Name

06 Sep 2016

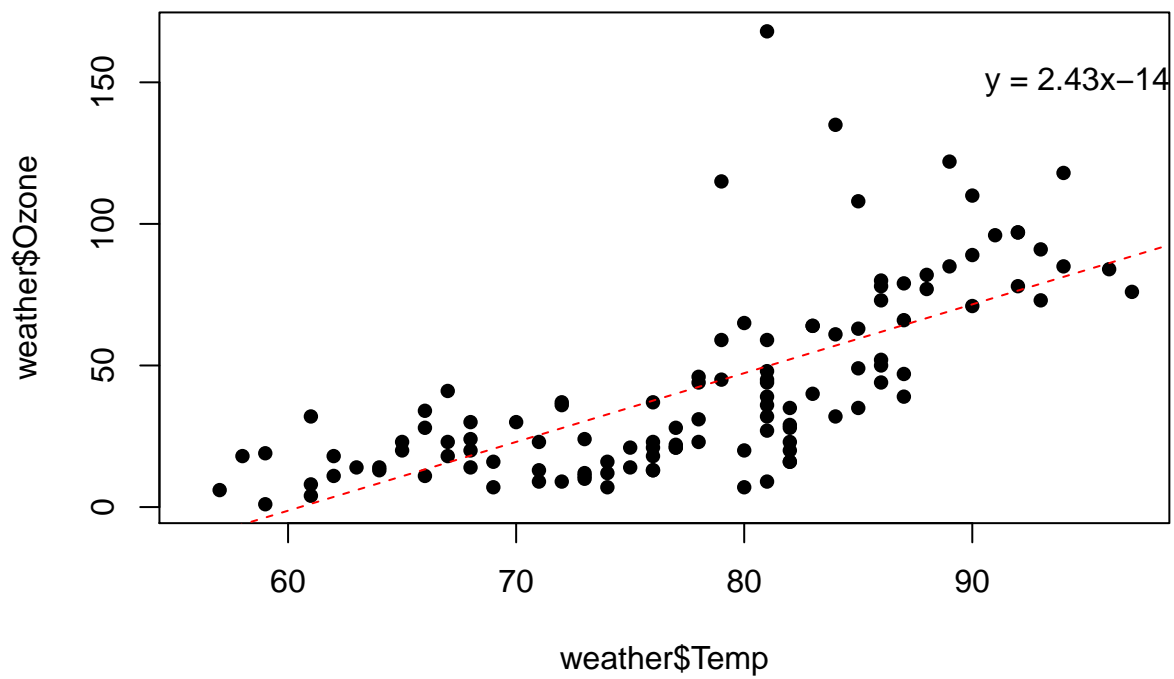
```
weather <- read.csv("ozone.csv")
```

- Perform a linear regression analysis to assess relationship between ozone level and temperature

```
mod1 <- lm(weather$Ozone~weather$Temp)
summary(mod1)
```

```
##
## Call:
## lm(formula = weather$Ozone ~ weather$Temp)
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -40.729 -17.409  -0.587   11.306  118.271
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept)  -146.9955     18.2872  -8.038 9.37e-13 ***
## weather$Temp    2.4287      0.2331   10.418 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 23.71 on 114 degrees of freedom
## (37 observations deleted due to missingness)
## Multiple R-squared:  0.4877, Adjusted R-squared:  0.4832
## F-statistic: 108.5 on 1 and 114 DF, p-value: < 2.2e-16
```

```
plot(weather$Temp, weather$Ozone, pch=16)
abline(mod1, col="red", lty=2)
c = coef(mod1)
text(95,150, paste("y = ", round(c[2],2), "x",round(c[1],2),sep=""))
```



```
plot(weather$Temp, weather$Ozone, pch=16)
abline(mod1, col="red", lty=2)
cor = cor(weather$Temp,weather$Ozone,use="c")
cor
```

```
## [1] 0.6983603
```

```
text(95,150, paste("r^2 = ", round(cor^2,2)))
```

