

A27_Hoermann

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Input Data

```
i = c(1:23)
T = c(66, 67, 68, 70, 72, 75, 76, 79, 53, 58, 70, 75, 67, 67, 69, 70, 73, 76, 78, 81, 57, 63, 70)
A = c(0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1)
dt = do.call(rbind, Map(data.frame, i = i, T = T, A = A))
dt
```

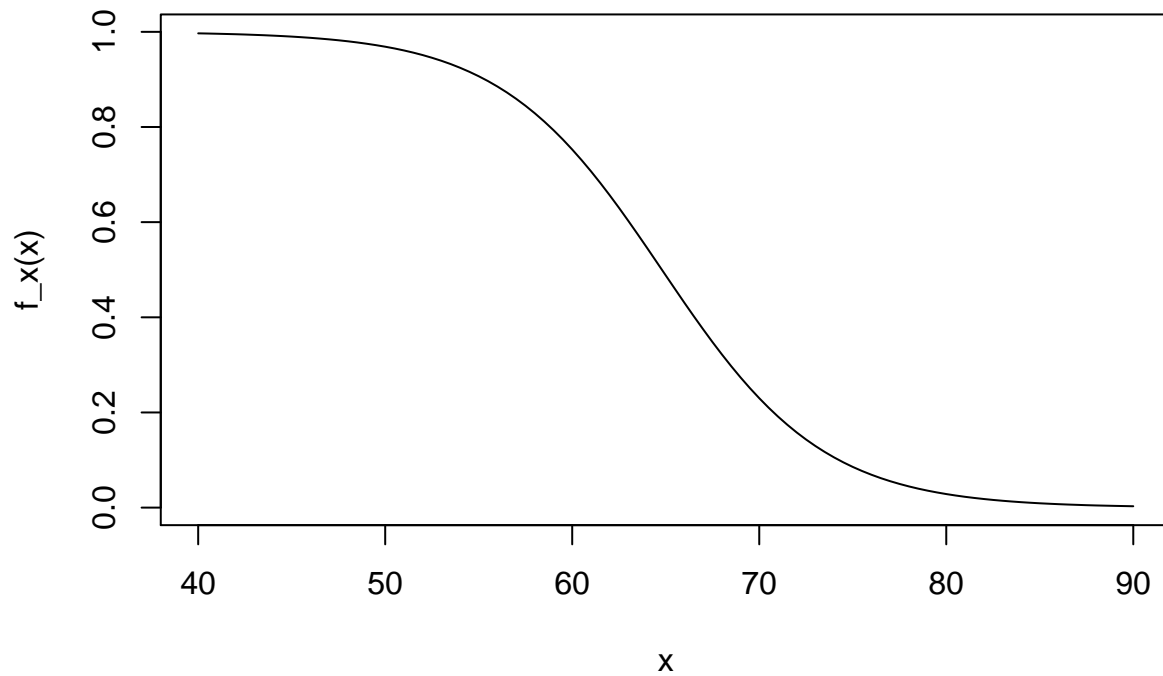
```
##      i  T A
## 1    1 66 0
## 2    2 67 0
## 3    3 68 0
## 4    4 70 0
## 5    5 72 0
## 6    6 75 0
## 7    7 76 0
## 8    8 79 0
## 9    9 53 1
## 10   10 58 1
## 11   11 70 1
## 12   12 75 1
## 13   13 67 0
## 14   14 67 0
## 15   15 69 0
## 16   16 70 0
## 17   17 73 0
## 18   18 76 0
## 19   19 78 0
## 20   20 81 0
## 21   21 57 1
## 22   22 63 1
## 23   23 70 1
```

Logistic Regression

```
lr_x = glm(A~T, family = binomial)
```

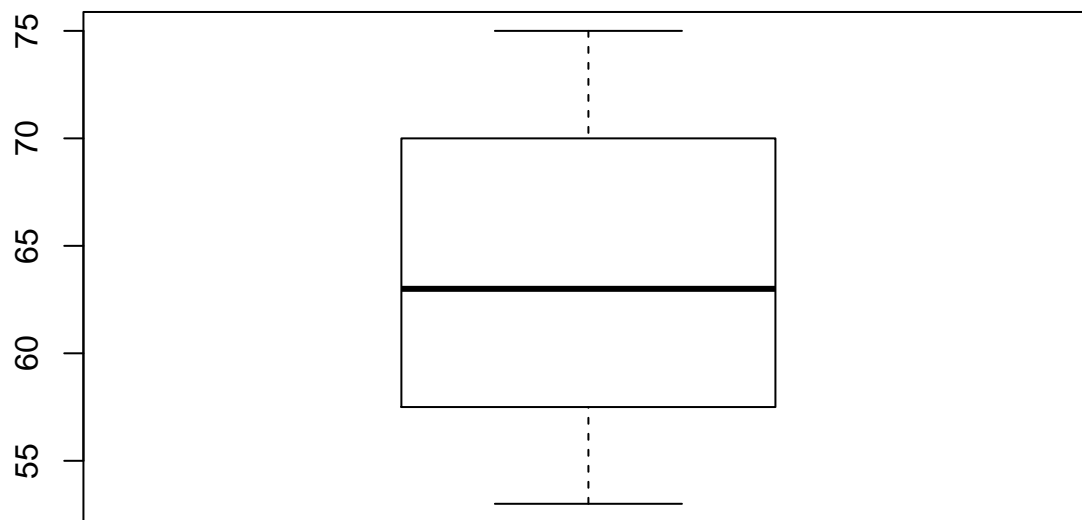
Visualization

```
b = lr_x$coefficients[1]
a = lr_x$coefficients[2]
f_x = function(x) {
  1 / (1 + exp(-(a*x + b)))
}
curve(f_x, from = 40, to = 90)
```



Boxplot where A is 1

```
boxplot(dt[A == 1,]$T)
```



Boxplot where A is 0

```
boxplot(dt[A == 0,]$T)
```

