

Solutions - chap 15

Exercise 15.3

a(i):

```
a <- 2.0429
b <- -.2821
x50 <- -a/b
x50
```

```
## [1] 7.241758
```

a(ii): Is due to b being negative.

(b):

```
Phat <- function(x){
  logit <- a+b*x
  odds <- exp(logit)
  prob <- odds/(1+odds)
  prob
}
Phat(20)
```

```
## [1] 0.0266203
```

(c):

```
.847-.051*20
```

```
## [1] -0.173
```

Less than zero!

(d): P-value=0.0051 is highly significant.

Exercise 15.5

- The race of the defendant has no significant influence.
- If the victim is white, you are significantly more likely to get a death penalty.