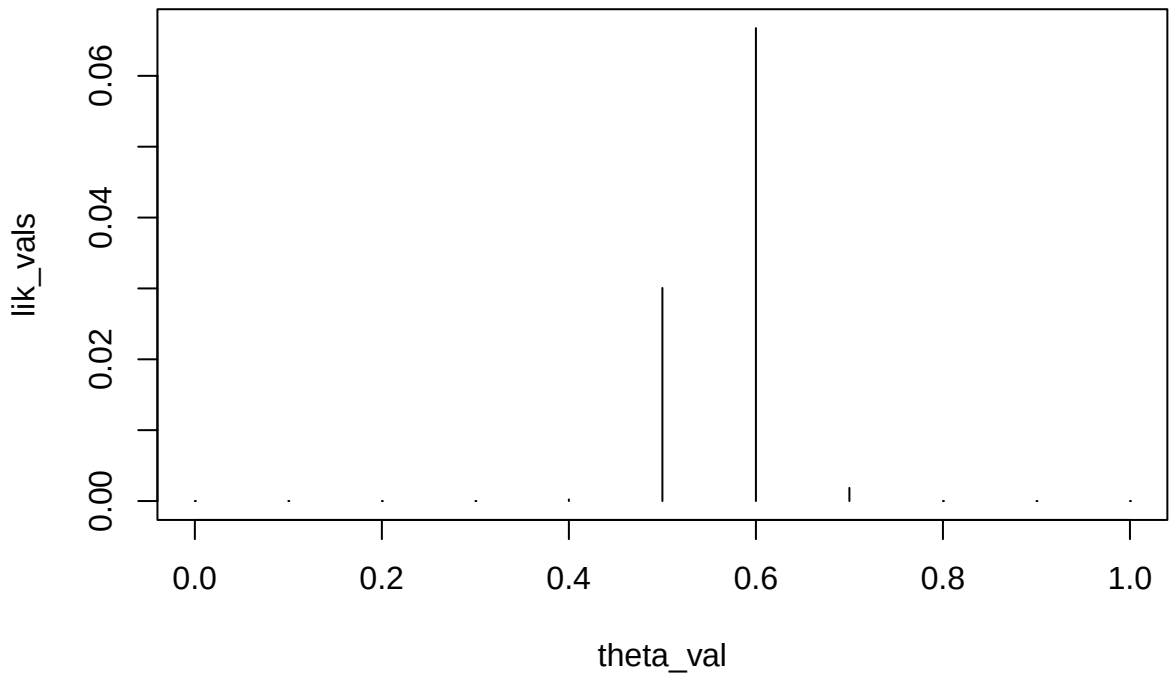
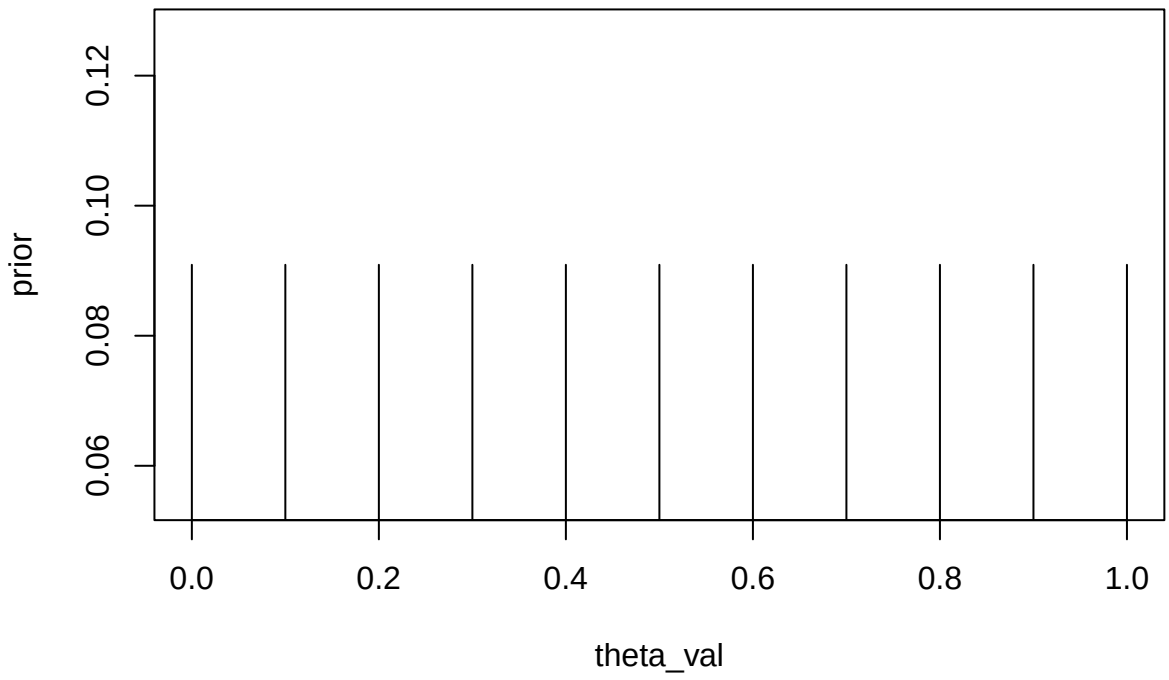
575_HW1

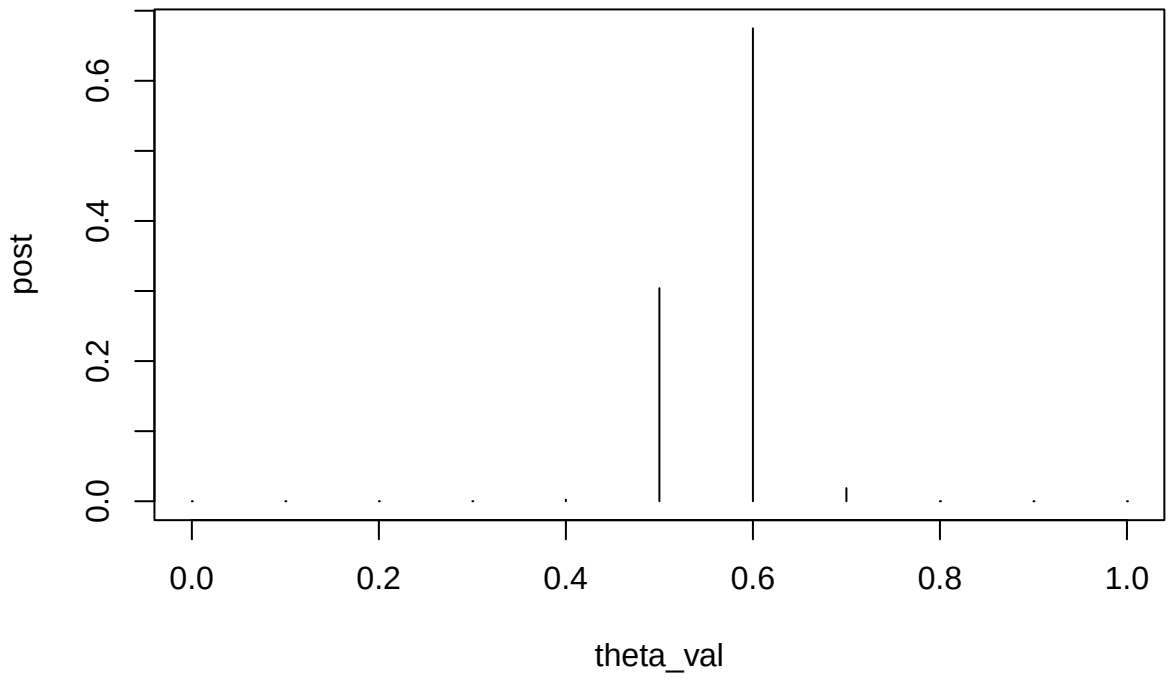
```r
# Part 1b

y <- 57
n <- 100
theta_val <- seq(0,1, by=.1)
lik_vals <- dbinom(y,size=n, prob=theta_val)

plot(theta_val, lik_vals, type = "h")
```



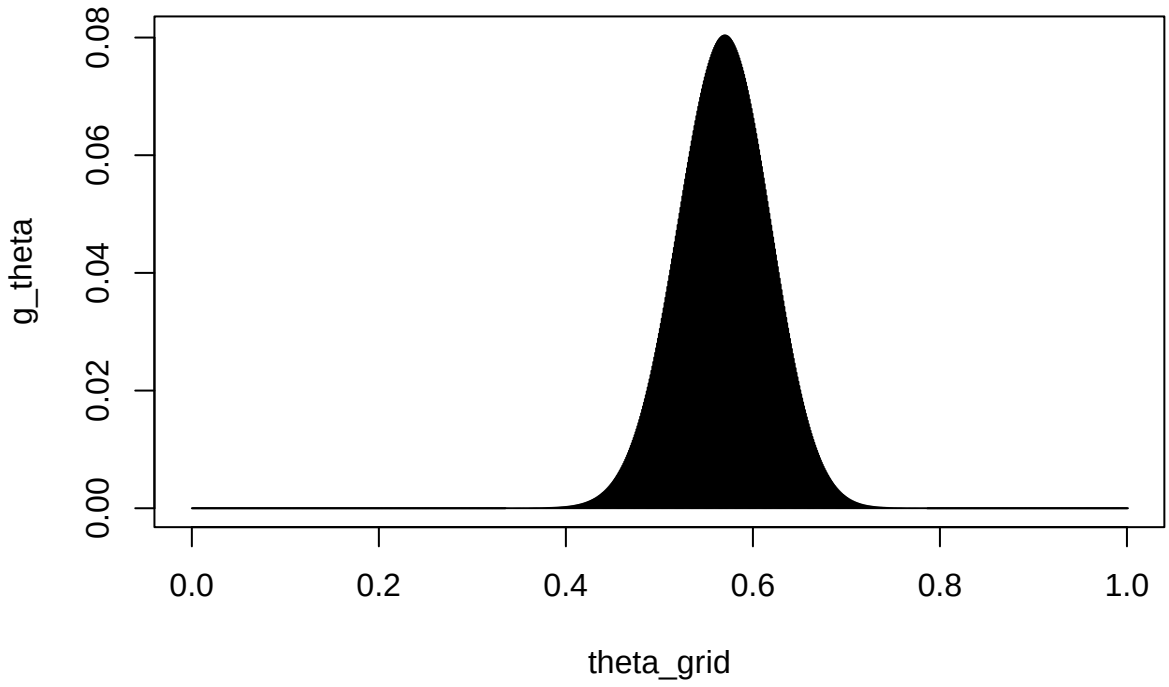

```r
#Part 1C

#This would be a uniform distribution from 0 to 1
prior <- rep(1/length(theta_val), times = length(theta_val))

plot(theta_val, prior, type = "h")
```



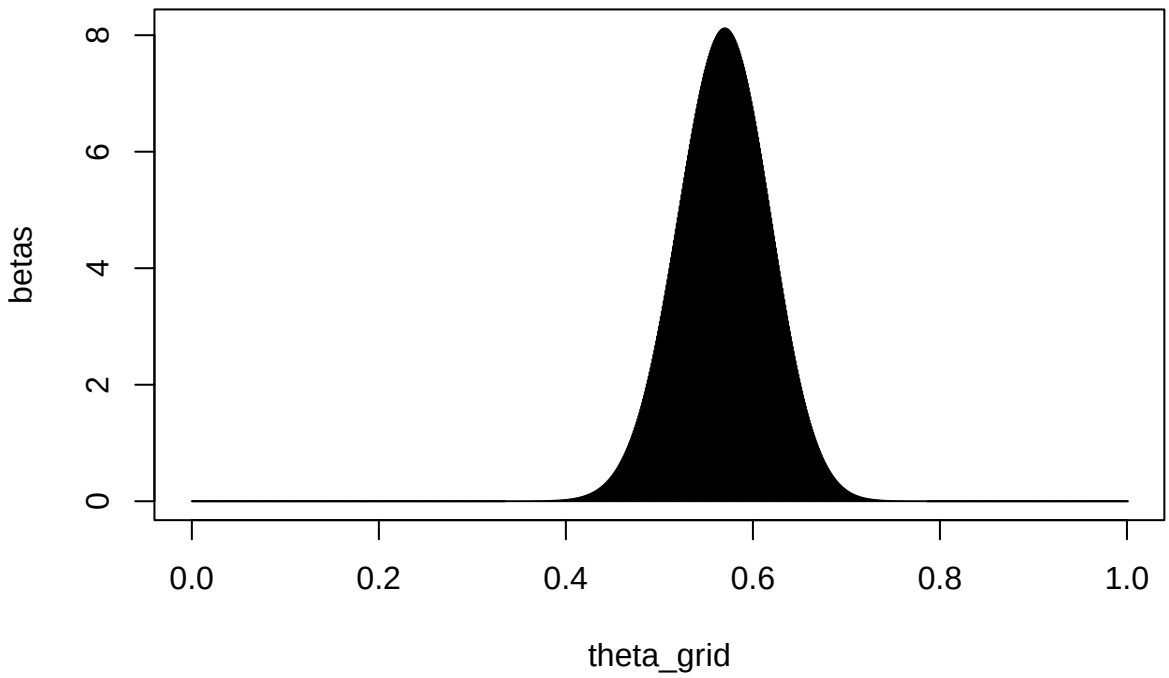

```r
#e

num <- prior * lik_vals
post <- num / sum(num)

plot(theta_val, post, "h")
```




```
#part2
theta_grid <- seq(0,1,length=1000)
g_theta <- dbinom(57, size=100, prob=theta_grid)

plot(theta_grid, g_theta, type="h")
```




```
theta_grid <- seq(0,1,length.out=1000)
betas <- dbeta(theta_grid, 58,44)

plot(theta_grid, betas, type="h")
```


betas
0
2
4
6
8
0.0
0.2
0.4
0.6
0.8
1.0
theta_grid