Probability

R code 2.1

```
sample <- c("W","L","W","W","W","L","W","L","W")
W <- sum(sample=="W") # number of W observed
L <- sum(sample=="L") # number of L observed
p <- c(0,0.25,0.5,0.75,1) # proportions W
ways <- sapply( p , function(q) (q*4)^W * ((1-q)*4)^L )
prob <- ways/sum(ways)
cbind( p , ways , prob )
```

```
     p ways       prob
[1,] 0.00    0 0.00000000
[2,] 0.25   27 0.02129338
[3,] 0.50  512 0.40378549
[4,] 0.75  729 0.57492114
[5,] 1.00    0 0.00000000
```