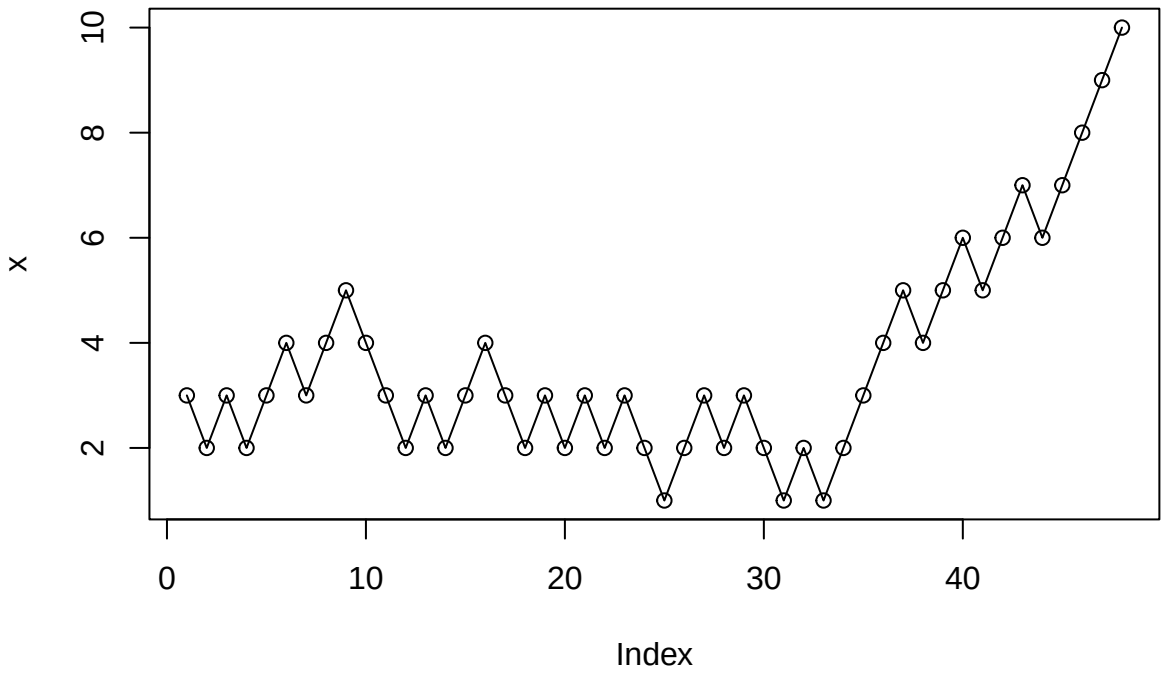
HW2

5

```
set.seed(1000)
x <- c(3)
while(x[length(x)] != 0  & x[length(x)] != 10){
  if(rbinom(1,1,0.5) == 1){
    x <- c(x, x[length(x)]+1)
    if(x[length(x)] == 10){
      break
    }
  }
  else{
    x <- c(x, x[length(x)]-1)
    if(x[length(x)] == 0){
      break
    }
  }
}
plot(x)
lines(x)
```




```
set.seed(1000)
x <- c(3)
x1 = c()
x10 = 0
```

```
probs1 <- seq(0.1,0.9, length =9)
for(p in probs1){
  for(i in 1:10000){
    while(x[length(x)] != 0  & x[length(x)] != 10){
      if(rbinom(1,1,p) == 1){
        x <- c(x, x[length(x)]+1)
        if(x[length(x)] == 10){
          x10 = x10 + 1
          x = c(3)
          break
    }
  }
      else{
        x <- c(x, x[length(x)]-1)
        if(x[length(x)] == 0){
          x = c(3)
          break
    }
  }
}
  }
  x1 <- c(x1,x10)
  x10 = 0
}
plot(probs1,x1)
lines(probs1, x1)
```