**Plinko Simulation**

The objective of this assignment is to write the **R** function `plinko.m` that simulates the game of Plinko, as played on *The Price Is Right*.

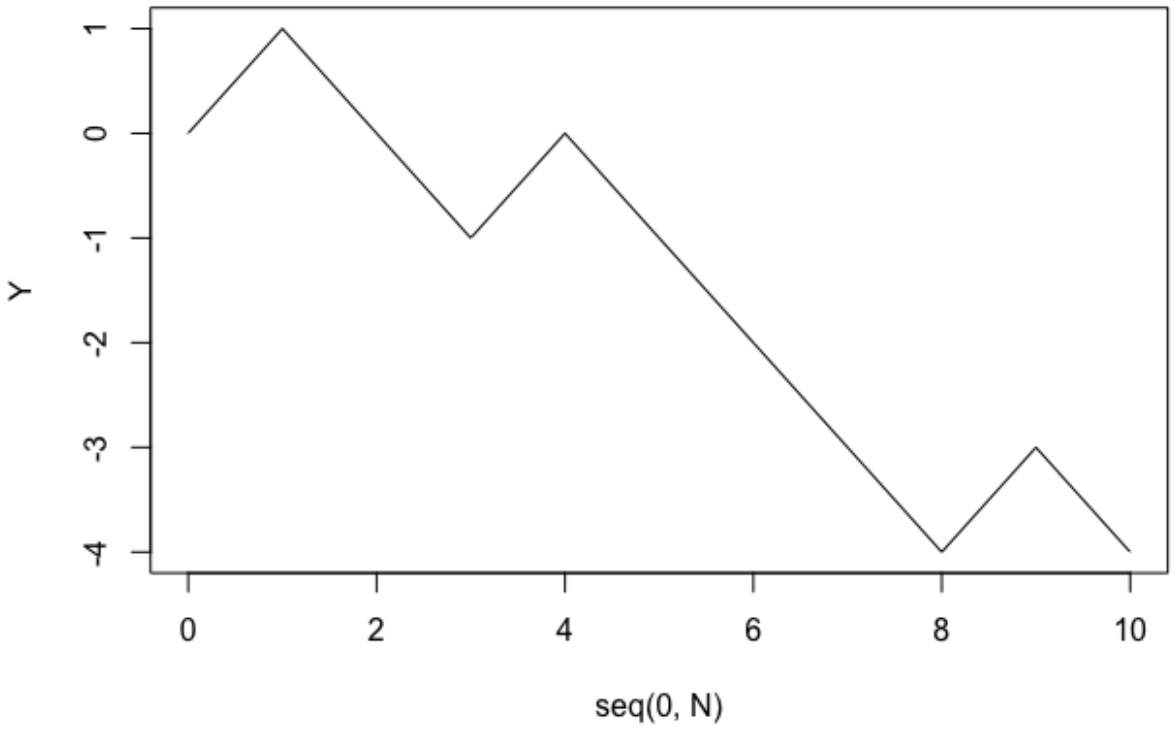
Imagine that you start at zero on a number line, and you generate a random number. If the value of the random number is less than a user-defined probability $p$, then you move to the left one unit. That is, you move from 0 to -1. If the value of random number is greater than $p$, then you move to the right one unit. You repeat this a user-defined $N$ times.

Inputs:

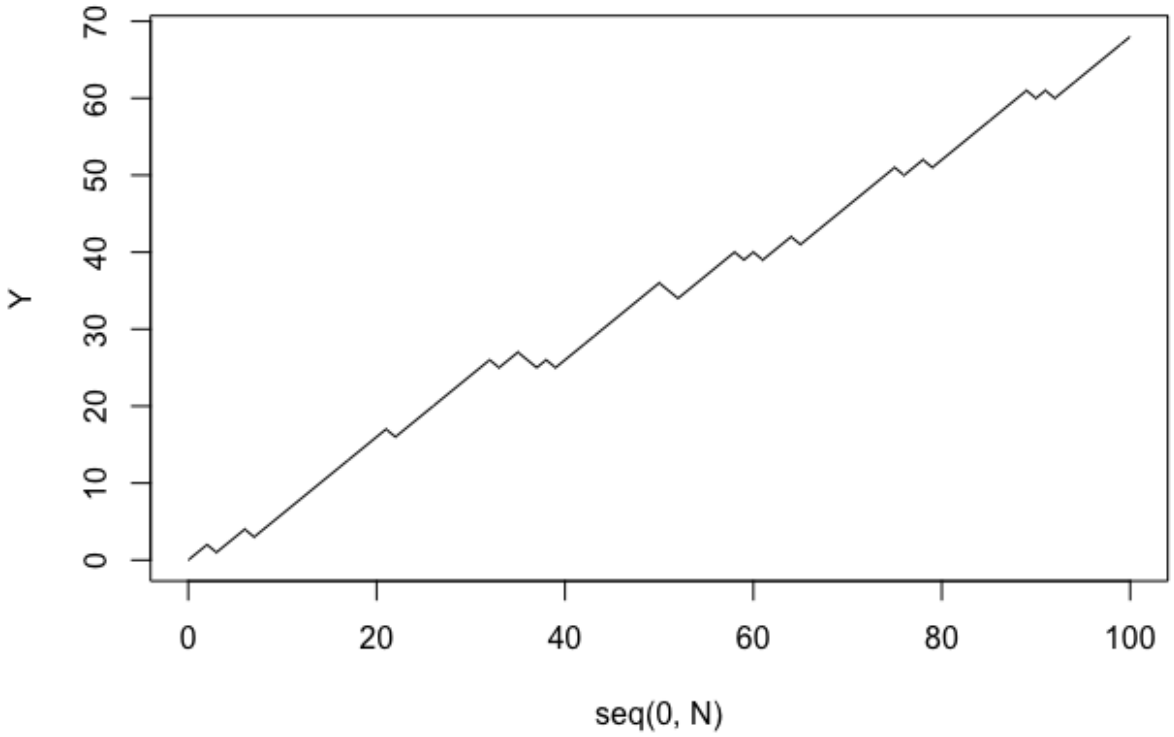
1. $p$ - the probability of a left step
2. $N$ - the number of steps

Output: $Y$ - the vector of positions.
Additionally, please plot the vector of positions.
Assume the inputs do not have any errors.
Good luck. Here are several examples.

```
> set.seed(10)
> plinko(1/2,10)
 [1]  0  1  0 -1  0 -1 -2 -3 -4 -3 -4
```



```
> plinko(1/6,100)
  [1]  0  1  2  1  2  3  4  3  4  5  6  7  8  9 10
 [16] 11 12 13 14 15 16 17 16 17 18 19 20 21 22 23
 [31] 24 25 26 25 26 27 26 25 26 25 26 27 28 29 30
 [46] 31 32 33 34 35 36 35 34 35 36 37 38 39 40 39
 [61] 40 39 40 41 42 41 42 43 44 45 46 47 48 49 50
 [76] 51 50 51 52 51 52 53 54 55 56 57 58 59 60 61
 [91] 60 61 60 61 62 63 64 65 66 67 68
```



```
> plinko(1/2,40)
 [1]  0 -1  0  1  0 -1  0  1  2  1  0 -1 -2 -1 -2
[16] -1  0  1  2  1  2  3  2  3  2  1  0  1  0  1
[31]  2  3  4  5  6  7  6  7  8  7  8
```