Project Random walks, Monte Carlo

**You need to submit two files, one a java txt file and a file with your results**

You start with x dollars (see below) in your possession and will bet $1 each time. If you win you gain a dollar and if you lose you lose a $1. The probability of winning is y (see below). You play until you exhaust all the money or until you win $100 (you end up with $x+$100).

So for the first set of values ($10 and 40% probability of winning), if the random number that comes up is less than .40, you win a dollar and you have $11, if it is more than .40 you lose a dollar so you have $9 now. Repeat until you either win or lose.

 x

|  |
| --- |
| $10 |
| $100 |
| $1000 |

y

|  |
| --- |
| .40 |
| 18/37 (roulette odds) |
| .50 |

There are then 9 different combinations. Run a simulation until you win or lose. Run each combination 50 times. For the 50, output how many times you win and how many bets on average you make to complete  (win or lose).