"""
Problem Statement -

Cricket match has been played

Given - let's assume (50/50) match(300 balls)

=>	overs completed, current score, required run, wickets fallen

Find -
=>	Write a function that finds the probability of winning the cricket Match.

Note:
=>	following events can occur on a single ball.
	=>	no run
	=>	1 run
	=>	2 run
	=>	3 run
	=>	4 run
	=>	6 run
	=>	wide ball (one run count, and ball not counted)
	=>	no ball (same as wide ball)
"""

def find_prob():

	return probability of winning the game.

	=>	no run - =0
	=>	1 run = 1
	=>	2 run = 2
	=>	3 run =3
	=>	4 run = 4
	=>	6 run =5
	=>	wide ball (one run count, and ball not counted) = 6
	=>	no ball (same as wide ball) = 7
		Wicketted = 8

int allActions = [0, 1, 2, 3, 4, 6, 0, 0, 0];

```
Const int totalWicektsHaving;
Int totalRemaingBall = (50 - oversCompleted) * 6;

rem_ball * action(9) *wicket * rem_run
double findProbability(int remainingBall, int action, int remainingWickets, int runScored) {
	if(runScored < 0)
		Return 1;

	if(remainingWickets >= totalWicektsHaving || remainingBall > totalRemaingBall)
		Return 0;

	Double previousSum = 0;
	if(action <= 6) {
		for(int i = 0; i < 9; ++i){
			previousSum += findProbability(remainingBall - 1, i, remainingWickets,
runScored - allActions[i]);
		}
	}
	Else if(action == 6 || action == 7){
		for(int i = 0; i < 9; ++i){
			previousSum += findProbability(remainingBall, i, remainingWickets,
runScored - 1);
		}
	}
	Else{
		for(int i = 0; i < 9; ++i){
			previousSum += findProbability(remainingBall, i, remainingWickets +1,
runScored - 1);

		}
	}

	Return (1/9) * prevousSum;
}

Double ans = 0;
for(int i = 0; i < 9; ++i){
	Ans += findProbability(totalRemaingBall, i, remainingWickets, runs);
}

Time = 9^n

1 - 9 actions  0, 1, 2, 3, 4, 5, 6, 7, 8
```

1 bal 9
2 ball 9 * 9
3 9 * 9 * 9

9^n where n is max(rem_run, rem_balls)

Def find_prob(rem_run, rem_balls,wickt):
    Base condition
    If (rem_run <= 0)
        Retun 1

    Return (find_prob(rem_run - 1, rem_ball - 1,wicket) * 1/9 + find_prob(rem_run - 2, rem_ball, wicket) * 1/9….)