

Homework 4 – DS270702 Sticks In the Pipe

Create advanced version of your stick in the pile code to make computer smarter and add comments to explain how does your code work...

Will computer always win when it starts to pick first?

The answer : No, the computer will not always win when it starts first because if we starts with the number of sticks as $(N*3)+1$ when $N = 1, 2, 3, \dots$ such as 4, 7, 10 and so on. If the computer picks first, it will have a possibility of losing depend on how player picks the sticks.

For example

No. of sticks	Computer		Player		Computer		Player		Computer		Player	
	Take	Remain	Take	Remain	Take	Remain	Take	Remain	Take	Remain	Take	Remain
7	1	6	2	4	2	2	1	1	1	Lose		
7	1	6	1	5	1	4	2	2	1	1	1	Lose