

Strategy CHANGE

Input: $x[t][c]$, $1 \leq t \leq T$ (999), $1 \leq c \leq 3$

Countcar = 0

Countgoat = 0

For $t = 1$ to T do

$g = \text{random}(1, 3)$ // select a door

 case 1: $x[t] == (1, 0, 0)$

 if $g == 1$ then return a goat

 // the host opens door 2 or door 3, the guest chooses door 3 or door 2,
 result is a goat

 if $g == 2$ then return a car

 Countgoat = Countgoat + 1

 // the host opens door 3, the guest chooses door 1,
 result is a car

 if $g == 3$ then return a car

 Countcar = Countcar + 1

 // the host opens door 2, the guest chooses door 1,
 result is a car

 case 2: $x[t] == (0, 1, 0)$

 if $g = 2$ then return a goat

 Countgoat = Countgoat + 1

 // the host opens door 1 or door 3, the guest chooses door 3 or door 1,
 result is a goat

 if $g == 1$ then return a car

 Countcar = Countcar + 1

 // the host opens door 3, the guest chooses door 2,
 result is a car

 if $g == 3$ then return a car

 Countcar = Countcar + 1

 // the host opens door 1, the guest chooses door 2,
 result is a car

 case 3: $x[t] == (0, 0, 1)$

 if $g == 3$ then return a goat

 Countgoat = Countgoat + 1

 // the host opens door 1 or door 2, the guest chooses door 2 or door 1,
 result is a goat

 if $g == 1$ then return a car

 Countcar = Countcar + 1

```
// the host opens door 2, the guest chooses door 3,  
    result is a car  
if g == 2 then return a car  
    Countcar = Countcar +1  
// the host opens door 1, the guest chooses door 3,  
    result is a car  
print (Countcar, Countgoat)
```