

ASUNCIÓN, BEATRIZ, U

PART 1

NO.  
DATE:

Step	State	Action	Reward	Next State
1	13, 11, F	Hit		19, 11, False
2	19, 11, F	Stand		19, 21, False
3	19, 21, F	Stand	-1	BUST
1	6, 2, F	Hit		11, 2, False
2	11, 2, F	Hit		17, 2, False
3	17, 2, F	Stand		17, 27, False
4	17, 27, F	Stand	1	WIN
1	5, 11, F	Hit		12, 11, False
2	12, 11, F	Hit		17, 11, False
3	17, 11, F	Stand		17, 21, False
4	17, 21, F	Stand	-1	BUST
1	12, 4, F	Hit		17, 4, False
2	17, 4, F	Hit		26, 19, False
3	26, 19, F	Stand	-1	BUST
1	6, 6, F	Hit		21, 6, False
2	21, 6, F	Stand		21, 26, False
3	21, 26, F	Stand	1	WIN
1	7, 3, F	Hit		15, 3, False
2	15, 3, F	Hit		25, 3, False
3	25, 3, F	Stand		25, 20, False
4	25, 20, F	Stand	-1	BUST
1	10, 6, F	Hit		21, 6, F
2	21, 6, F	Stand		21, 26, F
3	21, 26, F	Stand	1	WIN
1	18, 10, F	Stand		18, 10, F
2	18, 10, F	Stand		18, 22, F
3	18, 22, F	Stand	1	WIN
1	19, 2, F	Stand		19, 2, F
2	19, 2, F	Stand		19, 22, F
3	19, 22, F	Stand	1	WIN

NO.:  
DATE:

STEP	STATE	ACTION	REWARD	NEXT STATE
0	10, 6, False	HIT	0	18, 5, False
1	18, 5, False	HIT	0	18, 20, False
2	18, 5, False	Stand	-1	BUST
3	18, 20, False	Stand	-1	BUST

Part 2

a. State = (10, 6, False)

b. Number of Visits =  $N(10, 6, \text{False}) = 1$

c.  $V(10, 6, \text{False}) = 0$

d. Increment visit count  $N(10, 6, \text{False}) = 1$

e. Update value function  $V(10, 6, \text{False}) =$

(2)

21, 6, False

(3)

21, 26, False

State	Return $G_t$	$N(s)$	old $V(s)$	New $V(s)$
10, 6, F	1	1	0	0.2
21, 6, F	2	1	0	0.4
21, 26, F	3	1	0	0.6
18, 5, F	4	1	0	0.8
18, 20, F	5	1	0	1.0
18, 5, F	6	2	0.8	0.9
18, 20, F	7	2	1.0	0.95
18, 5, F	8	3	0.9	0.93
18, 20, F	9	3	0.95	0.94
18, 5, F	10	4	0.93	0.92
18, 20, F	11	4	0.94	0.93
18, 5, F	12	5	0.92	0.91
18, 20, F	13	5	0.93	0.92
18, 5, F	14	6	0.91	0.90
18, 20, F	15	6	0.92	0.91
18, 5, F	16	7	0.90	0.90
18, 20, F	17	7	0.91	0.90
18, 5, F	18	8	0.90	0.89
18, 20, F	19	8	0.90	0.89
18, 5, F	20	9	0.89	0.88
18, 20, F	21	9	0.89	0.88