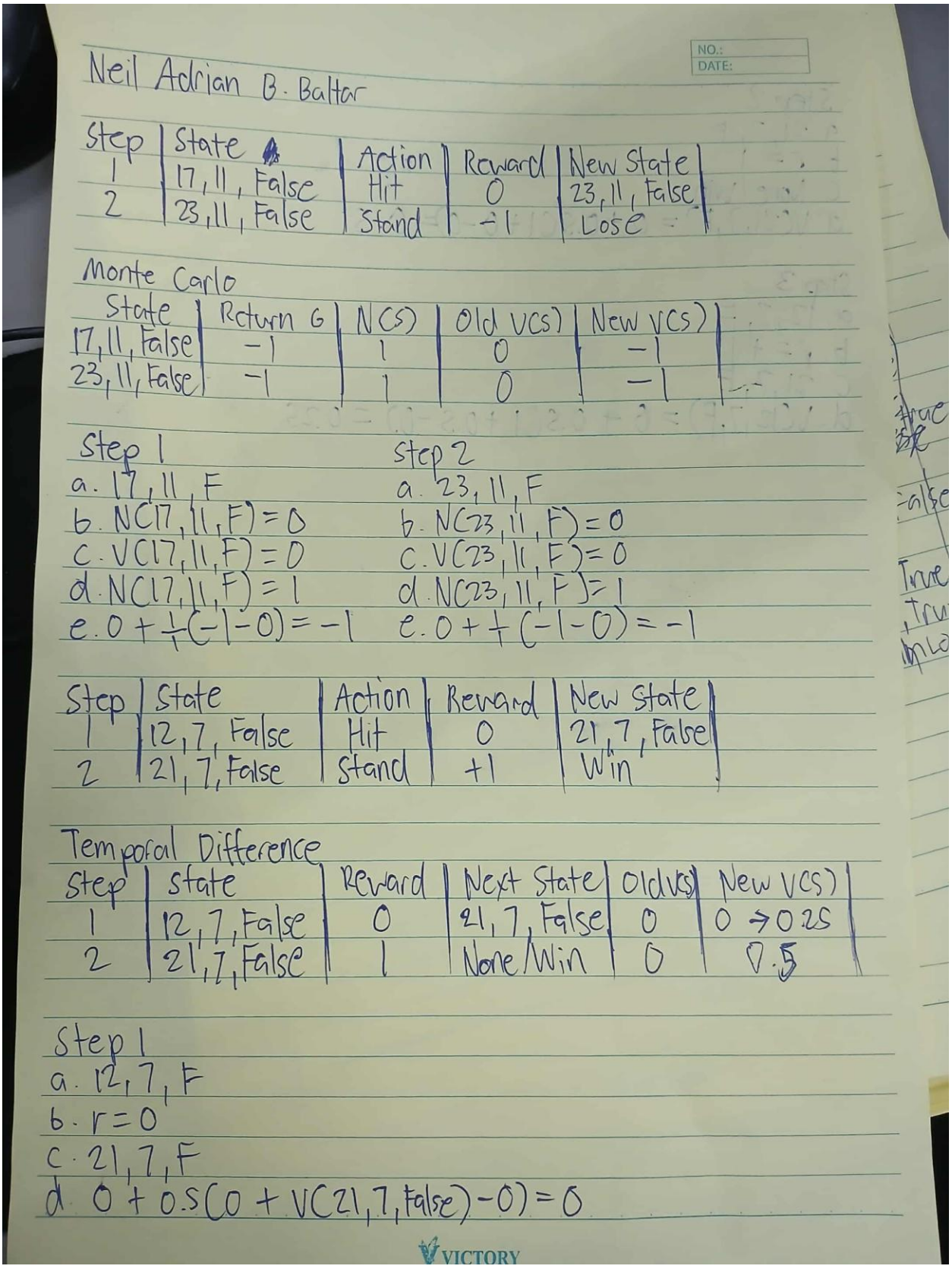
Neil Adrian B. Baltar



Neil Adrian B. Baltar

Step	State	Action	Reward	New State
1	17, 11, False	Hit	0	23, 11, False
2	23, 11, False	Stand	-1	Lose

Monte Carlo

State	Return G	N(S)	Old V(S)	New V(S)
17, 11, False	-1	1	0	-1
23, 11, False	-1	1	0	-1

Step 1
a. 17, 11, F
b. N(17, 11, F) = 0
c. V(17, 11, F) = 0
d. N(17, 11, F) = 1
e. $0 + \frac{1}{1}(-1 - 0) = -1$

Step 2
a. 23, 11, F
b. N(23, 11, F) = 0
c. V(23, 11, F) = 0
d. N(23, 11, F) = 1
e. $0 + \frac{1}{1}(-1 - 0) = -1$

Step	State	Action	Reward	New State
1	12, 7, False	Hit	0	21, 7, False
2	21, 7, False	Stand	+1	Win

Temporal Difference

Step	state	Reward	Next State	Old V(S)	New V(S)
1	12, 7, False	0	21, 7, False	0	0 → 0.25
2	21, 7, False	1	None/Win	0	0.5

Step 1
a. 12, 7, F
b. r = 0
c. 21, 7, F
d. $0 + 0.5(0 + V(21, 7, False) - 0) = 0$

NO.:
DATE:

Step 2
a. 21, 7, F
b. r = 1
c. None / Win
d. V(21, 7, F) = 0 + 0.5(1 + 0 - 0) = 0.5

Step 3
a. 12, 7, F
b. r = +1
c. 21, 7, F
d. V(12, 7, F) = 0 + 0.5(1 + 0.5 - 0) = 0.25

Episode	Step	State	Action	Reward	New
1	1	17, 11, False	Hit	0	23, 11, False
	2	23, 11 False	Stand	-1	Lose
2	1	12, 7, False	Hit	0	21, 7, False
	2	21, 7, False	Stand	+1	Win
	1	14, 8, False	Hit	0	18, 13, False
	2	18, 13, False	Hit	0	19, 19,
	3	19, 19	Stand	0	19, 25,
	4	19, 25, False	Stand	+1	Win
	1	11, 10, False	Hit	0	21, 18, False
	2	21, 18, False	Stand	+1	Win
	1	13, 11, False	Hit	0	23, 20, False
	2	23, 20, False	Stand	-1	Lose
	1	15, 5, False	Hit	0	25, 7, False
	2	25, 7, False	Stand	-1	Lose
	1	15, 5, False	Stand	0	15, 27, False
	2	15, 27, False	Stand	+1	Win
8	1	13, 3, False	Hit	0	18, 3, False
	2	18, 3, False	Hit	0	19, 3, False
	3	19, 3,	Stand	0	19, 22,
	4	19, 22, True	Stand	+1	Win
	1	18, 5, False	Stand	0	18, 23, False
	2	18, 23, False	Stand	+1	Win
	1	11, 4, False	Hit	0	12, 4, True
	2	12, 4,	Hit	0	22, 4, True
	3	22, 4, False	Stand	-1	Lose