	$V_{k+1}(s)$	$V_{k+1}(s)$	$V_{k+2}(s)$	$V_{k+3}(s)$
A	0	-1	-2	2.875
B	0	-1	-1.75	2.9375
D	0	-1	-1.75	2.4375
E	0	-1	-2	
F	0	-1	-1.5	
H	0	-1	-1.5	

A	B	C
D	E	F
G	H	I

1.) $V_{k+1}(A) = \frac{1}{4}[(-1+V(A)) + (-1+V(B)) + (-1+V(D)) + (-1+V(B))] = -1$

2) $V_{k+1}(B) = -1$

3) $V_{k+1}(D) = -1$

4) $V_{k+1}(E) = -1$

5.) $V_{k+1}(F) = -1$

6) $V_{k+1}(H) = -1$

7.)

A -1	B -1	C 0
D -1	E -1	F -1
G 0	H -1	I 0

8.) $q_{k+1}(A, \text{LEFT}) = -1 + V(A) = -1 + -1 = -2$

9) $q_{k+1}(A, \text{RIGHT}) = -1 + V(B) = -2$

10.) $q_{k+1}(A, \text{UP}) = -2$

11) $q_{k+1}(A, \text{Down}) = -2$

12) $\pi_{k+1}(A) = (\text{LEFT}, \text{RIGHT}, \text{UP}, \text{DOWN})$

13.) $q_{k+1}(B, \text{LEFT}) = -1 + (V(A) = -2$

14) $q_{k+1}(B, R) = -1 + V(C) = -1$

15) $q_{k+1}(B, U) = -1 + V(B) = -2$

16) $q_{k+1}(B, D) = -1 + V(E) = -2$

17) $\pi_{k+1}(B) = $ B(RIGHT)

18) " $(D, L) = -1 + -1 = -2$

19) " $(D, R) = -1 + V(E) = -2$

20) " $(D, U) = -1 + V(A) = -2$

21) " $(D, D) = -1 + V(G) = -1$

22) $\pi_{k+1}(D) = (\text{Down})$

23) $q_{k+1}(E, L) = -1 + V(D) = -2$

24) " $(E, R) = -1 + V(F) = -2$

25) " $(E, U) = -1 + V(B) = -2$

26) " $(E, D) = -1 + V(H) = -2$

27) $\pi_{k+1}(E) = (\text{Left}, \text{Right}, \text{Up}, \text{Down})$

28) $q_{k+1}(F, L) = -1 + V(E) = -2$

29) " $(F, R) = -1 + V(F) = -2$

30) " $(F, U) = -1 + V(C) = -1$

31) " $(F, D) = -1 + V(L) = -1$

32) $\pi_{k+1}(F) = (\text{Up}, \text{Down})$

33) $q_{k+1}(H, L) = -1 + V(G) = -1$

34) " $(H, R) = -1 + V(I) = -1$

35) " $(H, U) = -1 + V(E) = -2$

36) " $(H, D) = -1 + V(H) = -2$

37) $\pi_{k+1}(H) = (\text{Left}, \text{Right})$

38.)

A	B →	C
D ↓	E	F ↕
G	H ↔	I

VICTORY

(51) $\pi_*(A) = (Right, Down)$

(52) $\pi_*(B) = (Left)$

(53) $\pi_*(D) = (Down)$

(54) $\pi_*(E) = (Right, Down)$

(55) $\pi_*(F) = (Up, Down)$

(56) $\pi_*(H) = (Left, Right)$

$\frac{1}{4}[(-1-V(A)) + (-1-V(B)) + (-1-V(D)) + (-1-V(A))]$

(39) $V_{(k+1)}(A) = \frac{1}{4}[(-1) + (-1) + (-1) + (-1)] - 2$ ← This answer

(40) $V_{(k+1)}(B) = -1.75$

(41) $V_{(k+1)}(D) = -1.75$

(42) $V_{(k+1)}(E) = -2$

(43) $V_{(k+1)}(F) = \frac{1}{4}[(-2) + (-1) + (-1) + (-2)] = -1.5$

(44) $V_{(k+1)}(H) = -1.5$

(57.)

A: -2	B: -1.75	C: 0
D: -1.75	E: -2	F: -1.5
G: 0	H: -1.5	I: 0

(45) $q_{(k+1)}(A, L) = -3$

$q_{(k+1)}(A, R) = -2.75$

$q_{(k+1)}(A, U) = -3$

$q_{(k+1)}(A, D) = -2.75$

Right Down

(46) $q_{(k+1)}(B, L) =$ ~~Left~~

$q_{(k+1)}(B, R) = -1$

$q_{(k+1)}(B, U) = -2.75$

$q_{(k+1)}(B, D) = -3$

(47) $q_{(k+1)}(D, L) = -2.75$

$q_{(k+1)}(D, R) = -3$

Down

$q_{(k+1)}(D, U) = -3$

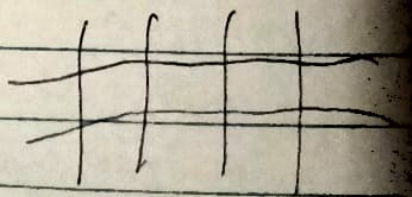
$q_{(k+1)}(D, D) = -1$

(48) $q_{(k+1)}(E, L) = -2.75$ (Right, Down)

$q_{(k+1)}(E, R) = -2.5$

$q_{(k+1)}(E, U) = -2.75$

$q_{(k+1)}(E, D) = -2.5$



(49) $q_{(k+1)}(F, L) = -3$ (Up, Down)

$q_{(k+1)}(F, R) = -2.5$

$q_{(k+1)}(F, U) = -1$

$q_{(k+1)}(F, D) = -1$

(50) $q_{(k+1)}(H, L) = -1$ (Left Right)

$q_{(k+1)}(H, R) = -1$

$q_{(k+1)}(H, U) = -3$

$q_{(k+1)}(H, D) = -2.5$

(58.)