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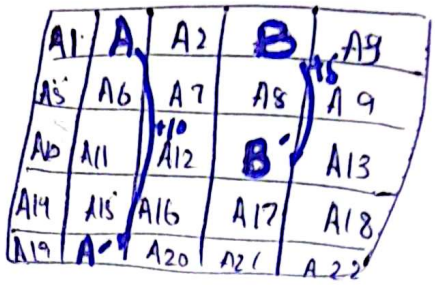
Home Task 2



Iteration: 1

$$V_{A1} = \frac{1}{2}[-1 + 0.9(V_{A1})] + \frac{1}{4}[(0 + 0.9(V_{A}')) + (0 + 0.9(V_{A5}'))]$$

$$V_{A1} = \frac{1}{2}[-1 + 0.9(0)] + \frac{1}{4}[0 + 0.9(0)]$$

$$\boxed{V_{A1} = -0.5}$$

$$V_{A}' = [10 + 0.9(V_{A}')] = [10 + 0.9(0)] = \boxed{10}$$

$$V_{A2} = \frac{1}{4}[(-1 + 0.9(V_{A2})) + (0 + 0.9(V_{A}')) + (0 + 0.9(V_{B}')) + (0 + 0.9(V_{A7}))]$$

$$= \frac{1}{4}[-1]$$

$$\boxed{V_{A2} = -0.25}$$

$$V(B') = [5 + 0.9(V_{B}')] = \boxed{5}$$

$$V(A3) = \frac{1}{2}[-1 + 0.9(V_{A3})] + \frac{1}{4}[(0 + 0.9(V_{B}')) + (0 + 0.9(V_{A4}))]$$

$$V(A3) = \frac{1}{2}[-1]$$

$$\boxed{V(A3) = -0.5}$$

$$V(A5) = \frac{1}{4}[(-1 + 0.9(V_{A5}')) + (0 + 0.9(V_{A1})) + (0 + 0.9(V_{A6})) + (0 + 0.9($$

$$\boxed{V(A5) = -0.25}$$

$$V(A6) = \frac{1}{4}[(0 + 0.9(V_{A}')) + (0 + 0.9(V_{A7})) + (0 + 0.9(V_{A5}')) + (0 + 0.9(V_{A11}))]$$

$$V(A6) = \frac{1}{4}[0] = 0$$

$$V(A7) = \frac{1}{4}[(0 + 0.9(V_{A2})) + (0 + 0.9(V_{A6})) + (0 + 0.9(V_{A8})) + (0 + 0.9(V_{A12}))]$$

$$V(A7) = 0$$

$$V(A8) = \frac{1}{4}([0 + 0.9(V_{B}')] + [0 + 0.9(V_{A7})] + [0 + 0.9(V_{B}')] + [0 + 0.9(V_{A9})]$$

$$= \frac{1}{4}(0)$$

$$V(A8) = 0$$

$$V(A9) = \frac{1}{4}[(-1+0.9(VA9)) + (0+0.9(VA3)) + (0+0.9(VA8)) + (0+0.9(VA13))]$$

$$= \frac{1}{4}[-1)$$

$$V(A9) = -0.25$$

$$V(A10) = \frac{1}{4}[(-1+0.9(VA10)) + (0+0.9(VA5)) + (0+0.9(VA11)) + (0+0.9(VA14))]$$

$$V(A10) = -0.25$$

$$V(A11) = \frac{1}{4}[(0+0.9(VA6)) + (0+0.9(VA10)) + (0+0.9(VA12)) + (0+0.9(VA15))]$$

$$V(A11) = 0$$

$$V(A12) = \frac{1}{4}[(0+0.9(VA11)) + (0+0.9(V7)) + (0+0.9(VB')) + (0+0.9(VA16))]$$

$$= \frac{1}{4}(0)$$

$$V(A12) = 0$$

$$V(B') = \frac{1}{4}[(0+0.9(VA8)) + (0+0.9(VA12)) + (0+0.9(VA13)) + (0+0.9(A17))]$$

$$= \frac{1}{4}(0) = 0$$

$$V(A13) = \frac{1}{4}[(-1+0.9(VA13)) + (0+0.9(VA9)) + (0+0.9(V(B')) + (0+0.9(VA18))]$$

$$= -0.25$$

$$V(A14) = \frac{1}{4}[(-1+0.9(VA14)) + (0+0.9(VA10)) + (0+0.9(VA15)) + (0+0.9(V19))]$$

$$= -0.25$$

$$V(A15) = \frac{1}{4}[(0+0.9(VA11)) + (0+0.9(VA14)) + (0+0.9(VA16)) + (0+0.9(VA'))]$$

$$= 0$$

$$V(A16) = \frac{1}{4}[(0+0.9(VA12)) + (0+0.9(VA15)) + (0+0.9(VA17)) + (0+0.9(VA20))]$$

$$= 0$$

$$V(A17) = \frac{1}{4}[(0+0.9(VB')) + (0+0.9(VA16)) + (0+0.9(VA18)) + (0+0.9(V21))]$$

$$= \frac{1}{4}(0) = 0$$

$$V(A18) = \frac{1}{4}[(-1+0.9(VN8)) + (0+0.9(VA13)) + (0+0.9(V(A17))) + (0+0.9(VCA22))]$$

$$= -0.25$$

$$V(A19) = \frac{1}{2}[-1+0.9(VA19)] + \frac{1}{4}[(0+0.9(VA14)) + (0+0.9(VA'))]$$

$$= -0.5$$

$$V(A') = \frac{1}{4}[(-1+0.9(VA')) + (0+0.9(VA15)) + (0+0.9(VA18)) + (0+0.9(VA23))]$$

$$V(A') = -0.25$$

$V(A20) = \frac{1}{9}[(1+0.9(VA20)) + (0+0.9(VA16)) + (0+0.9(VA21)) + (0+0.9(VA19))]$

$V(A21) = \frac{1}{4}[(-1+0.9(VA21)) + (0+0.9(VA20)) + (0+0.9(VA12)) + (0+0.9(VA22))]$

$= -0.25$

$V(A22) = \frac{1}{4}[(-1+0.9(VA22)) + (0+0.9(VA18)) + (0+0.9(VA21)) + (-1+0.9(VA22))]$

$= -0.5$

Iteration 2,

$VA1 = \frac{1}{2}[-1+0.9(-0.5)] + \frac{1}{4}[(0.9(10)) + (0.9(-0.25))]$

$VA1 = -0.725 + 2.193$

$VA1 = 1.468 \simeq 1.47$

$VA2 = \frac{1}{4}[(-1+0.9(-0.25)) + (0.9(10)) + (0.9(5)) + (0.9(0))]$

$VA2 = 3.06$

$VB = [5+0.9(0)] = 5$

$VA3 = \frac{1}{2}[-1+0.9(-0.5)] + \frac{1}{4}[(0+0.9(5))] + (0+0.9(-0.25))]$

$= 0.725 + 1.06$

$= 0.335$

$V(A5) = \frac{1}{4}[(-1+0.9(-0.25)) + (0+0.9(-0.5)) + (0+0.9(0)) + (0+0.9(-0.25))]$

$= -0.48$

$V(A6) = \frac{1}{4}[(0+0.9(10)) + (0+0.9(A)) + (0+0.9(-0.25)) + (0+0.9(0))]$

$= 2.19$

$V(A7) = \frac{1}{4}[(0+0.9(-0.25)) + (0+0.9(0)) + (0+0.9(0)) + (0+0.9(0))]$

$= -0.06$

$V(A8) = \frac{1}{4}([0+0.9(5)] + [0+0.9(0)] + (0+0.9(0)) + (0+0.9(-0.25))$

$= 1.07$

$V(A9) = \frac{1}{4}[(-1+0.9(-0.25)) + (0+0.9(-0.5)) + (0+0.9(0)) + (0+0.9(-0.25))]$

$V(A9) = -0.48$

$V(A10) = \frac{1}{4}[(-1+0.9(-0.25)) + (0+0.9(-0.25)) + (0+0.9(0)) + (0+0.9(-0.25))]$

$V(A10) = -0.42$

$V(A11) = \frac{1}{4}[(0+0.9(0)) + (0+0.9(-0.25)) + (0+0.9(0)) + (0+0.9(0))]$

$V(A11) = -0.06$

$V(A12) = \frac{1}{4}[(0+0.9(0)) + (0+0.9(0)) + (0+0.9(0)) + (0+0.9(0))]$

$V(A12) = 0$

$V(B') = \frac{1}{4}[(0+0.9(0)) + (0+0.9(0)) + (0+0.9(-0.25)) + (0+0.9(0))]$

$V(B') = -0.06$

$V(A13) = \frac{1}{4}[(-1+0.9(-0.25)) + (0+0.9(-0.25)) + (0+0.9(0)) + (0+0.9(-0.25))]$

$V(A13) = -0.42$

$V(A14) = \frac{1}{4}[(-1+0.9(-0.25)) + (0+0.9(-0.25)) + (0+0.9(0)) + (0+0.9(-0.5))]$

$V(A14) = -0.48$

$V(A15') = \frac{1}{4}[(0+0.9(0)) + (0+0.9(-0.25)) + (0+0.9(0)) + (0+0.9(-0.25))]$

$V(A15') = -0.11$

$V(A16) = -0.06$

$V(A17) = -0.11$

$V(A18) = -0.48$

$V(A19) = -0.89$

$V(A)' = -0.48$

$V(A20) = -0.42$

$V(A21) = -0.48$

$V(A22) = -0.84$

Iteration 3

$V(A1) = 0.25$

$V(A) = 9.57$

$V(A2) = 3.75$

$V(B) = 4.95$

$V(A3) = 0.67$

$V(A5) = 0.37$

$V(A6) = 2.07$

$V(A7) = 1.42$

$V(A8) = 0.99$

$V(A9) = -0.13$

$V(A10) = -0.57$

$V(A11) = 0.37$

$V(A12) = -0.05$

$V(B') = 0.12$

$V(A13) = -0.37$

$V(A14) = -0.66$

$V(A15') = -0.24$

$V(A16) = -0.17$

$V(A17) = -0.24$

$V(A18) = -0.66$

$V(A19) = -1.09$

$V(A') = -0.66$

$V(A20) = -0.57$

$V(A21) = -0.66$

$V(A22) = -1.07$

Iteration 4

V(A1) = 2.75
V(A) = 9.40
V(A2) = 4.18
V(B) = 8.11
V(A3) = 0.89
V(A5') = 0.68
V(A6) = 2.69
V(A7) = 1.82
V(A8) = 1.43
V(A9) = -0.03
V(A10) = -0.36

V(A11) = 0.27
V(A12) = 0.40
V(B') = 0.03
V(A13) = -0.53
V(A14) = -0.83
V(A15') = -0.25
V(A16) = -0.25
V(A17) = -0.30
V(A18) = -0.83
V(A19) = -1.29
V(A') = -0.83
V(A20) = -0.71

V(A21) = -0.83
V(A22) = -1.29

Iteration 5

V(A1) = 3.01
V(A) = 9.26
V(A2) = 4.30
V(B) = 5.03
V(A3) = 1.04
V(A5) = 1.04
V(A6) = 2.67
V(A7) = 1.95
V(A8) = 1.49
V(A9) = 0.14
V(A10) = -0.30

V(A11) = 0.55
V(A12) = 0.35
V(B') = 0.22
V(A13) = -0.56
V(A14) = -0.86
V(A15') = -0.37
V(A16) = -0.19
V(A17) = -0.42
V(A18) = -0.91
V(A19) = -1.45
V(A') = -0.94
V(A20) = -0.84

V(A21) = -0.95
V(A22) = -1.45