Start Episode: 1

Current state: 8

Step no.: 1

Current State: 8

Reward CS: 10

Possible next states: 3 7 9 13

Next state: 13

New Q-Value: 8

Step no.: 2

Current State: 13

Reward CS: -100

Possible next states: 8 12 14 18

Next state: 8

New Q-Value: -80

Step no.: 3

Current State: 8

Reward CS: 10

Possible next states: 3 7 9 13

Next state: 7

New Q-Value: 14.1

Step no.: 4

Current State: 7

Reward CS: 10

Possible next states: 2 6 8 12

Next state: 12

New Q-Value: 8

Step no.: 5

    Current State: 12

    Reward CS: 10

    Possible next states: 7 11 13 17

    Next state: 7

    New Q-Value: 15.9

Step no.: 6

    Current State: 7

    Reward CS: 10

    Possible next states: 2 6 8 12

    Next state: 8

    New Q-Value: 14.1

Step no.: 7

    Current State: 8

    Reward CS: 10

    Possible next states: 3 7 9 13

    Next state: 9

    New Q-Value: 18.7

Step no.: 8

    Current State: 9

    Reward CS: 10

    Possible next states: 4 8 10 14

    Next state: 8

    New Q-Value: 15.9

Step no.: 9

    Current State: 8

    Reward CS: 10

Possible next states: 3 7 9 13

Next state: 9

New Q-Value: 22.2

Step no.: 10

Current State: 9

Reward CS: 10

Possible next states: 4 8 10 14

Next state: 14

New Q-Value: 20.1

Step no.: 11

Current State: 14

Reward CS: 10

Possible next states: 9 13 15 19

Next state: 9

New Q-Value: 20.4

Step no.: 12

Current State: 9

Reward CS: 10

Possible next states: 4 8 10 14

Next state: 10

New Q-Value: 23.3

Step no.: 13

Current State: 10

Reward CS: -100

Possible next states: 5 9 15

Next state: 15

New Q-Value: -68.6

Step no.: 14

    Current State: 15

    Reward CS: -100

    Possible next states: 10 14 20

    Next state: 14

    New Q-Value: -67

Step no.: 15

    Current State: 14

    Reward CS: 10

    Possible next states: 9 13 15 19

    Next state: 13

    New Q-Value: 24.5

Step no.: 16

    Current State: 13

    Reward CS: -100

    Possible next states: 8 12 14 18

    Next state: 14

    New Q-Value: -83

Step no.: 17

    Current State: 14

    Reward CS: 10

    Possible next states: 9 13 15 19

    Next state: 13

    New Q-Value: 26.6

Step no.: 18

    Current State: 13

Reward CS: -100

Possible next states: 8 12 14 18

Next state: 18

New Q-Value: -96.6

Step no.: 19

Current State: 18

Reward CS: 10

Possible next states: 13 17 19 23

Next state: 17

New Q-Value: 16.9

Step no.: 20

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 12

New Q-Value: 15.9

Step no.: 21

Current State: 12

Reward CS: 10

Possible next states: 7 11 13 17

Next state: 11

New Q-Value: 20.1

End Episode: 1

Start Episode: 2

Current state: 5

Step no.: 1

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 10

New Q-Value: -67

Step no.: 2

Current State: 10

Reward CS: -100

Possible next states: 5 9 15

Next state: 5

New Q-Value: -93.7

Step no.: 3

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 4

New Q-Value: -80.4

Step no.: 4

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 5

New Q-Value: 0

Step no.: 5

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 4

New Q-Value: -83

Step no.: 6

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 5

New Q-Value: 0

Step no.: 7

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 10

New Q-Value: -83.6

Step no.: 8

Current State: 10

Reward CS: -100

Possible next states: 5 9 15

Next state: 5

New Q-Value: -98.7

Step no.: 9

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 4

New Q-Value: -83.7

Step no.: 10

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 9

New Q-Value: 14.9

Step no.: 11

Current State: 9

Reward CS: 10

Possible next states: 4 8 10 14

Next state: 4

New Q-Value: 25.7

Step no.: 12

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 3

New Q-Value: 15.4

Step no.: 13

Current State: 3

Reward CS: -100

Possible next states: 2 4 8

Next state: 2

New Q-Value: -72.1

Step no.: 14

Current State: 2

Reward CS: -100

Possible next states: 1 3 7

Next state: 7

New Q-Value: -67.6

Step no.: 15

Current State: 7

Reward CS: 10

Possible next states: 2 6 8 12

Next state: 12

New Q-Value: 19.7

Step no.: 16

Current State: 12

Reward CS: 10

Possible next states: 7 11 13 17

Next state: 13

New Q-Value: 26.9

Step no.: 17

Current State: 13

Reward CS: -100

Possible next states: 8 12 14 18

Next state: 12

New Q-Value: -88.3

Step no.: 18

Current State: 12

Reward CS: 10

Possible next states: 7 11 13 17

Next state: 17

New Q-Value: 28.4

Step no.: 19

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 18

New Q-Value: 20.1

Step no.: 20

Current State: 18

Reward CS: 10

Possible next states: 13 17 19 23

Next state: 17

New Q-Value: 27.3

Step no.: 21

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 12

New Q-Value: 23.3

End Episode: 2

Start Episode: 3

Current state: 5

Step no.: 1

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 10

New Q-Value: -82.3

Step no.: 2

    Current State: 10

    Reward CS: -100

    Possible next states: 5 9 15

    Next state: 15

    New Q-Value: -84.8

Step no.: 3

    Current State: 15

    Reward CS: -100

    Possible next states: 10 14 20

    Next state: 14

    New Q-Value: -79

Step no.: 4

    Current State: 14

    Reward CS: 10

    Possible next states: 9 13 15 19

    Next state: 15

    New Q-Value: 28.2

Step no.: 5

    Current State: 15

    Reward CS: -100

    Possible next states: 10 14 20

    Next state: 10

    New Q-Value: -81.4

Step no.: 6

    Current State: 10

    Reward CS: -100

Possible next states: 5 9 15

Next state: 9

New Q-Value: -81.2

Step no.: 7

Current State: 9

Reward CS: 10

Possible next states: 4 8 10 14

Next state: 8

New Q-Value: 27.5

Step no.: 8

Current State: 8

Reward CS: 10

Possible next states: 3 7 9 13

Next state: 3

New Q-Value: 24.9

Step no.: 9

Current State: 3

Reward CS: -100

Possible next states: 2 4 8

Next state: 4

New Q-Value: -79

Step no.: 10

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 3

New Q-Value: 17

Step no.: 11

Current State: 3

Reward CS: -100

Possible next states: 2 4 8

Next state: 4

New Q-Value: -80.4

Step no.: 12

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 5

New Q-Value: 12.9

Step no.: 13

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 4

New Q-Value: -81.1

Step no.: 14

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 5

New Q-Value: 9.8

Step no.: 15

Current State: 5

Reward CS: -100

Possible next states: 4 10

Next state: 4

New Q-Value: -80.8

Step no.: 16

Current State: 4

Reward CS: 0

Possible next states: 3 5 9

Next state: 3

New Q-Value: 15.9

Step no.: 17

Current State: 3

Reward CS: -100

Possible next states: 2 4 8

Next state: 8

New Q-Value: -80.7

Step no.: 18

Current State: 8

Reward CS: 10

Possible next states: 3 7 9 13

Next state: 13

New Q-Value: 28.9

Step no.: 19

Current State: 13

Reward CS: -100

Possible next states: 8 12 14 18

Next state: 8

New Q-Value: -82.3

Step no.: 20

Current State: 8

Reward CS: 10

Possible next states: 3 7 9 13

Next state: 3

New Q-Value: 30

Step no.: 21

Current State: 3

Reward CS: -100

Possible next states: 2 4 8

Next state: 4

New Q-Value: -80.7

End Episode: 3

Start Episode: 4

Current state: 15

Step no.: 1

Current State: 15

Reward CS: -100

Possible next states: 10 14 20

Next state: 10

New Q-Value: -80.9

Step no.: 2

Current State: 10

Reward CS: -100

Possible next states: 5 9 15

Next state: 15

New Q-Value: -80.4

Step no.: 3

Current State: 15

Reward CS: -100

Possible next states: 10 14 20

Next state: 20

New Q-Value: -96.2

Step no.: 4

Current State: 20

Reward CS: -100

Possible next states: 15 19 25

Next state: 25

New Q-Value: -80

Step no.: 5

Current State: 25

Reward CS: 100

Possible next states: 20 24

Next state: 20

New Q-Value: 80

End Episode: 4

Start Episode: 5

Current state: 15

Step no.: 1

Current State: 15

Reward CS: -100

Possible next states: 10 14 20

Next state: 14

New Q-Value: -83.8

Step no.: 2

    Current State: 14

    Reward CS: 10

    Possible next states: 9 13 15 19

    Next state: 19

    New Q-Value: 29.4

Step no.: 3

    Current State: 19

    Reward CS: 10

    Possible next states: 14 18 20 24

    Next state: 18

    New Q-Value: 21

Step no.: 4

    Current State: 18

    Reward CS: 10

    Possible next states: 13 17 19 23

    Next state: 23

    New Q-Value: 28.7

Step no.: 5

    Current State: 23

    Reward CS: 10

    Possible next states: 18 22 24

    Next state: 22

    New Q-Value: 21

Step no.: 6

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 17

New Q-Value: -63.9

Step no.: 7

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 22

New Q-Value: 25.7

Step no.: 8

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 17

New Q-Value: -76.7

Step no.: 9

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 16

New Q-Value: 27.5

Step no.: 10

Current State: 16

Reward CS: 10

Possible next states: 11 17 21

Next state: 21

New Q-Value: 8

Step no.: 11

Current State: 21

Reward CS: -100

Possible next states: 16 22

Next state: 16

New Q-Value: -64.6

Step no.: 12

Current State: 16

Reward CS: 10

Possible next states: 11 17 21

Next state: 17

New Q-Value: 25.7

Step no.: 13

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 12

New Q-Value: 28.9

Step no.: 14

Current State: 12

Reward CS: 10

Possible next states: 7 11 13 17

Next state: 11

New Q-Value: 29.6

Step no.: 15

Current State: 11

Reward CS: 10

Possible next states: 6 12 16

Next state: 16

New Q-Value: 24.2

Step no.: 16

Current State: 16

Reward CS: 10

Possible next states: 11 17 21

Next state: 17

New Q-Value: 29.7

Step no.: 17

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 22

New Q-Value: 30

Step no.: 18

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 23

New Q-Value: -79.3

Step no.: 19

Current State: 23

Reward CS: 10

Possible next states: 18 22 24

Next state: 24

New Q-Value: 57

Step no.: 20

Current State: 24

Reward CS: 10

Possible next states: 19 23 25

Next state: 23

New Q-Value: 24.1

Step no.: 21

Current State: 23

Reward CS: 10

Possible next states: 18 22 24

Next state: 18

New Q-Value: 51.3

End Episode: 5

Start Episode: 6

Current state: 17

Step no.: 1

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 16

New Q-Value: 30.8

Step no.: 2

Current State: 16

Reward CS: 10

Possible next states: 11 17 21

Next state: 21

New Q-Value: 30.6

Step no.: 3

Current State: 21

Reward CS: -100

Possible next states: 16 22

Next state: 22

New Q-Value: -64.2

Step no.: 4

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 21

New Q-Value: -78.7

Step no.: 5

Current State: 21

Reward CS: -100

Possible next states: 16 22

Next state: 16

New Q-Value: -75.6

Step no.: 6

Current State: 16

Reward CS: 10

Possible next states: 11 17 21

Next state: 21

New Q-Value: 31.3

Step no.: 7

    Current State: 21

    Reward CS: -100

    Possible next states: 16 22

    Next state: 22

    New Q-Value: -66.4

Step no.: 8

    Current State: 22

    Reward CS: -100

    Possible next states: 17 21 23

    Next state: 21

    New Q-Value: -78.2

Step no.: 9

    Current State: 21

    Reward CS: -100

    Possible next states: 16 22

    Next state: 22

    New Q-Value: -64.6

Step no.: 10

    Current State: 22

    Reward CS: -100

    Possible next states: 17 21 23

    Next state: 23

    New Q-Value: -79.6

Step no.: 11

    Current State: 23

Reward CS: 10

Possible next states: 18 22 24

Next state: 24

New Q-Value: 63.1

Step no.: 12

Current State: 24

Reward CS: 10

Possible next states: 19 23 25

Next state: 25

New Q-Value: 26.3

Step no.: 13

Current State: 25

Reward CS: 100

Possible next states: 20 24

Next state: 20

New Q-Value: 140.8

End Episode: 6

Start Episode: 7

Current state: 22

Step no.: 1

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 17

New Q-Value: -78.4

Step no.: 2

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 18

New Q-Value: 49.5

Step no.: 3

Current State: 18

Reward CS: 10

Possible next states: 13 17 19 23

Next state: 19

New Q-Value: 30.2

Step no.: 4

Current State: 19

Reward CS: 10

Possible next states: 14 18 20 24

Next state: 20

New Q-Value: 91

Step no.: 5

Current State: 20

Reward CS: -100

Possible next states: 15 19 25

Next state: 19

New Q-Value: -79.1

Step no.: 6

Current State: 19

Reward CS: 10

Possible next states: 14 18 20 24

Next state: 24

New Q-Value: 105

Step no.: 7

    Current State: 24

    Reward CS: 10

    Possible next states: 19 23 25

    Next state: 19

    New Q-Value: 30.2

Step no.: 8

    Current State: 19

    Reward CS: 10

    Possible next states: 14 18 20 24

    Next state: 24

    New Q-Value: 107.8

Step no.: 9

    Current State: 24

    Reward CS: 10

    Possible next states: 19 23 25

    Next state: 19

    New Q-Value: 31

Step no.: 10

    Current State: 19

    Reward CS: 10

    Possible next states: 14 18 20 24

    Next state: 18

    New Q-Value: 89.9

Step no.: 11

Current State: 18

Reward CS: 10

Possible next states: 13 17 19 23

Next state: 17

New Q-Value: 31.6

Step no.: 12

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 16

New Q-Value: 45.6

Step no.: 13

Current State: 16

Reward CS: 10

Possible next states: 11 17 21

Next state: 21

New Q-Value: 31.8

Step no.: 14

Current State: 21

Reward CS: -100

Possible next states: 16 22

Next state: 22

New Q-Value: -57.6

Step no.: 15

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 17

New Q-Value: -77.9

Step no.: 16

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 22

New Q-Value: 52.5

Step no.: 17

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 17

New Q-Value: -77.8

Step no.: 18

Current State: 17

Reward CS: 10

Possible next states: 12 16 18 22

Next state: 22

New Q-Value: 53.8

Step no.: 19

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 23

New Q-Value: -77.9

Step no.: 20

Current State: 23

Reward CS: 10

Possible next states: 18 22 24

Next state: 22

New Q-Value: 56

Step no.: 21

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 17

New Q-Value: -77.8

End Episode: 7

Start Episode: 8

Current state: 21

Step no.: 1

Current State: 21

Reward CS: -100

Possible next states: 16 22

Next state: 22

New Q-Value: -60.2

Step no.: 2

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 21

New Q-Value: -77.8

Step no.: 3

    Current State: 21

    Reward CS: -100

    Possible next states: 16 22

    Next state: 16

    New Q-Value: -61.9

Step no.: 4

    Current State: 16

    Reward CS: 10

    Possible next states: 11 17 21

    Next state: 21

    New Q-Value: 32.2

Step no.: 5

    Current State: 21

    Reward CS: -100

    Possible next states: 16 22

    Next state: 22

    New Q-Value: -61

Step no.: 6

    Current State: 22

    Reward CS: -100

    Possible next states: 17 21 23

    Next state: 23

    New Q-Value: -77.9

Step no.: 7

    Current State: 23

    Reward CS: 10

Possible next states: 18 22 24

Next state: 22

New Q-Value: 50.6

Step no.: 8

    Current State: 22

    Reward CS: -100

    Possible next states: 17 21 23

    Next state: 17

    New Q-Value: -77.5

Step no.: 9

    Current State: 17

    Reward CS: 10

    Possible next states: 12 16 18 22

    Next state: 16

    New Q-Value: 48.9

Step no.: 10

    Current State: 16

    Reward CS: 10

    Possible next states: 11 17 21

    Next state: 17

    New Q-Value: 32.5

Step no.: 11

    Current State: 17

    Reward CS: 10

    Possible next states: 12 16 18 22

    Next state: 22

    New Q-Value: 46.1

Step no.: 12

    Current State: 22

    Reward CS: -100

    Possible next states: 17 21 23

    Next state: 17

    New Q-Value: -77.3

Step no.: 13

    Current State: 17

    Reward CS: 10

    Possible next states: 12 16 18 22

    Next state: 18

    New Q-Value: 67.6

Step no.: 14

    Current State: 18

    Reward CS: 10

    Possible next states: 13 17 19 23

    Next state: 17

    New Q-Value: 32.5

Step no.: 15

    Current State: 17

    Reward CS: 10

    Possible next states: 12 16 18 22

    Next state: 18

    New Q-Value: 71.9

Step no.: 16

    Current State: 18

Reward CS: 10

Possible next states: 13 17 19 23

Next state: 13

New Q-Value: 32.7

Step no.: 17

Current State: 13

Reward CS: -100

Possible next states: 8 12 14 18

Next state: 12

New Q-Value: -56.2

Step no.: 18

Current State: 12

Reward CS: 10

Possible next states: 7 11 13 17

Next state: 7

New Q-Value: 30.7

Step no.: 19

Current State: 7

Reward CS: 10

Possible next states: 2 6 8 12

Next state: 6

New Q-Value: 25.5

Step no.: 20

Current State: 6

Reward CS: 10

Possible next states: 1 7 11

Next state: 11

New Q-Value: 26.2

Step no.: 21

Current State: 11

Reward CS: 10

Possible next states: 6 12 16

Next state: 6

New Q-Value: 27.1

End Episode: 8

Start Episode: 9

Current state: 18

Step no.: 1

Current State: 18

Reward CS: 10

Possible next states: 13 17 19 23

Next state: 23

New Q-Value: 32.9

Step no.: 2

Current State: 23

Reward CS: 10

Possible next states: 18 22 24

Next state: 24

New Q-Value: 97

Step no.: 3

Current State: 24

Reward CS: 10

Possible next states: 19 23 25

Next state: 25

New Q-Value: 31.6

Step no.: 4

Current State: 25

Reward CS: 100

Possible next states: 20 24

Next state: 24

New Q-Value: 187

End Episode: 9

Start Episode: 10

Current state: 18

Step no.: 1

Current State: 18

Reward CS: 10

Possible next states: 13 17 19 23

Next state: 23

New Q-Value: 33

Step no.: 2

Current State: 23

Reward CS: 10

Possible next states: 18 22 24

Next state: 22

New Q-Value: 81.7

Step no.: 3

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 21

New Q-Value: -77.3

Step no.: 4

Current State: 21

Reward CS: -100

Possible next states: 16 22

Next state: 22

New Q-Value: -46.4

Step no.: 5

Current State: 22

Reward CS: -100

Possible next states: 17 21 23

Next state: 23

New Q-Value: -77

Step no.: 6

Current State: 23

Reward CS: 10

Possible next states: 18 22 24

Next state: 24

New Q-Value: 129.1

Step no.: 7

Current State: 24

Reward CS: 10

Possible next states: 19 23 25

Next state: 25

New Q-Value: 32

Step no.: 8

Current State: 25

Reward CS: 100

Possible next states: 20 24

Next state: 20

New Q-Value: 222.1

End Episode: 10