CS 580: Introduction to Artificial Intelligence
Project 1: Using SA to Construct Covering Arrays

Please enter a value for K, from 5 to 7:

5

Covering Array

Execution Times: 12

[0, 0, 1, 0, 0]

[0, 1, 0, 1, 0]

[1, 0, 0, 0, 0]

[0, 1, 0, 0, 1]

[1, 0, 1, 1, 1]

[1, 1, 1, 1, 1]

****

Covering Array

Execution Times: 17

[0, 0, 1, 1, 0]

[1, 0, 0, 0, 0]

[0, 1, 0, 1, 0]

[1, 0, 0, 1, 1]

[1, 1, 1, 1, 1]

[0, 1, 1, 0, 1]

****

Covering Array

Execution Times: 22

[0, 0, 0, 0, 1]

[0, 1, 0, 0, 0]

[1, 0, 0, 1, 1]

[1, 1, 1, 1, 1]

[0, 0, 1, 1, 0]

[1, 0, 1, 0, 0]

****

Covering Array

Execution Times: 46

[0, 0, 0, 1, 1]

[0, 1, 0, 1, 0]

[1, 1, 1, 0, 0]

[0, 0, 1, 0, 1]

[1, 0, 1, 1, 0]

[1, 1, 0, 0, 1]

****

Covering Array

Execution Times: 13

[0, 0, 0, 1, 0]

[1, 0, 0, 0, 0]

[0, 1, 0, 0, 1]

[1, 1, 0, 1, 1]

[0, 1, 1, 0, 0]

[1, 0, 1, 1, 1]

****

Covering Array

Execution Times: 40
[1, 0, 1, 1, 0]
[0, 0, 0, 1, 0]
[0, 1, 1, 1, 1]
[1, 1, 0, 1, 1]
[0, 1, 1, 0, 0]
[1, 0, 0, 0, 1]
****
Covering Array
Execution Times: 24
[0, 0, 0, 1, 0]
[1, 0, 0, 0, 0]
[0, 1, 0, 0, 1]
[0, 1, 1, 0, 0]
[1, 1, 1, 1, 1]
[1, 0, 1, 0, 1]
****
Covering Array
Execution Times: 11
[1, 0, 0, 0, 0]
[0, 0, 1, 0, 1]
[1, 1, 1, 0, 0]
[1, 1, 0, 1, 1]
[1, 0, 1, 1, 1]
[0, 1, 0, 1, 0]
****
Covering Array
Execution Times: 15
[1, 0, 0, 0, 0]
[0, 0, 1, 0, 1]
[0, 1, 1, 0, 0]
[0, 1, 0, 1, 0]
[0, 0, 0, 1, 1]
[1, 1, 1, 1, 1]
****
Covering Array
Execution Times: 32
[0, 0, 1, 0, 0]
[0, 0, 1, 1, 1]
[0, 1, 0, 0, 0]
[1, 1, 1, 1, 0]
[0, 1, 0, 1, 1]
[1, 0, 0, 0, 1]
****
Covering Array
Execution Times: 13
[1, 0, 1, 0, 1]
[0, 1, 1, 0, 1]
[0, 1, 0, 0, 0]
[1, 1, 0, 1, 1]
[1, 0, 1, 1, 0]
[0, 0, 0, 1, 1]
****

Covering Array
Execution Times: 18
[0, 0, 0, 1, 0]
[0, 0, 0, 0, 1]
[0, 1, 1, 1, 1]
[1, 0, 1, 1, 1]
[1, 1, 0, 1, 0]
[1, 1, 1, 0, 0]
****

Covering Array
Execution Times: 6
[0, 0, 0, 1, 1]
[1, 0, 1, 1, 0]
[1, 1, 0, 1, 1]
[0, 1, 1, 1, 0]
[1, 0, 1, 0, 1]
[0, 1, 0, 0, 0]
****

Covering Array
Execution Times: 11
[0, 0, 0, 1, 0]
[0, 1, 1, 0, 1]
[0, 1, 0, 0, 0]
[1, 1, 0, 1, 1]
[1, 0, 1, 1, 0]
[1, 0, 0, 0, 1]
****

Covering Array
Execution Times: 4
[0, 1, 1, 0, 0]
[0, 1, 0, 1, 1]
[1, 0, 0, 0, 1]
[0, 0, 1, 1, 1]
[1, 0, 1, 1, 0]
[1, 1, 0, 1, 0]
****

Covering Array
Execution Times: 14
[0, 0, 1, 1, 0]
[1, 0, 0, 1, 0]
[1, 1, 1, 1, 1]
[0, 0, 0, 0, 1]
[0, 1, 1, 0, 0]
[1, 1, 0, 0, 1]
****

Covering Array
Execution Times: 10
[0, 0, 0, 0, 0]
[1, 0, 1, 0, 0]
[0, 1, 1, 0, 1]
[0, 0, 1, 1, 1]
[1, 1, 0, 1, 0]
[1, 0, 0, 1, 1]

```
************************************
Covering Array
Execution Times: 4
[1, 1, 1, 1, 0]
[0, 0, 0, 0, 0]
[0, 1, 1, 0, 0]
[1, 1, 0, 0, 1]
[1, 0, 1, 0, 1]
[0, 0, 0, 1, 1]
************************************
Covering Array
Execution Times: 4
[0, 1, 0, 0, 1]
[0, 1, 1, 1, 0]
[1, 0, 1, 0, 1]
[0, 0, 0, 1, 0]
[1, 0, 0, 1, 1]
[1, 1, 0, 0, 0]
************************************
Covering Array
Execution Times: 11
[0, 1, 0, 1, 1]
[0, 0, 0, 0, 0]
[0, 0, 1, 0, 1]
[1, 1, 1, 0, 0]
[0, 1, 1, 1, 0]
[1, 0, 0, 1, 1]
************************************
Covering Array
Execution Times: 20
[0, 1, 0, 0, 0]
[0, 0, 1, 1, 0]
[0, 0, 0, 0, 1]
[1, 0, 0, 1, 0]
[1, 1, 1, 0, 1]
[1, 1, 0, 1, 1]
************************************
Covering Array
Execution Times: 5
[0, 1, 0, 0, 0]
[0, 0, 0, 1, 1]
[1, 0, 0, 1, 0]
[0, 0, 1, 0, 0]
[1, 1, 1, 1, 1]
[1, 1, 1, 0, 1]
************************************
Covering Array
Execution Times: 8
[0, 0, 0, 1, 1]
[0, 1, 1, 1, 0]
[0, 0, 0, 0, 0]
[1, 1, 0, 1, 0]
[1, 0, 1, 0, 1]
```

[1, 1, 0, 0, 1]
****
Covering Array
Execution Times: 15
[0, 0, 0, 0, 0]
[1, 0, 0, 1, 0]
[0, 0, 1, 0, 1]
[1, 0, 1, 1, 1]
[0, 1, 1, 1, 0]
[1, 1, 0, 0, 1]
****
Covering Array
Execution Times: 7
[0, 0, 0, 0, 1]
[1, 1, 0, 0, 0]
[0, 1, 0, 1, 0]
[0, 1, 1, 0, 1]
[1, 1, 1, 1, 1]
[1, 0, 1, 1, 0]
****
Covering Array
Execution Times: 9
[0, 1, 1, 1, 1]
[0, 0, 1, 0, 1]
[1, 0, 0, 1, 1]
[0, 0, 0, 0, 0]
[0, 1, 0, 1, 0]
[1, 1, 1, 0, 0]
****
Covering Array
Execution Times: 32
[0, 1, 0, 1, 0]
[0, 0, 0, 0, 1]
[0, 1, 1, 0, 1]
[1, 1, 0, 1, 1]
[1, 0, 1, 0, 0]
[1, 0, 1, 1, 1]
****
Covering Array
Execution Times: 15
[0, 0, 1, 1, 1]
[0, 0, 0, 0, 0]
[1, 1, 0, 0, 1]
[0, 1, 0, 1, 0]
[1, 1, 1, 0, 0]
[1, 0, 1, 1, 1]
****
Covering Array
Execution Times: 9
[0, 1, 0, 1, 1]
[0, 1, 1, 0, 0]
[1, 0, 0, 0, 1]
[0, 0, 0, 0, 0]

[0, 0, 1, 1, 1]
[1, 1, 1, 1, 0]
****

Covering Array
Execution Times: 23
[0, 0, 0, 0, 0]
[0, 0, 1, 0, 1]
[1, 1, 0, 0, 0]
[1, 0, 0, 1, 1]
[0, 1, 1, 1, 0]
[1, 1, 1, 1, 1]
****

Covering Array
Execution Times: 36
[0, 0, 0, 0, 1]
[1, 0, 1, 0, 0]
[0, 0, 1, 1, 0]
[0, 1, 0, 0, 0]
[1, 1, 1, 1, 1]
[1, 1, 0, 1, 0]
****

Please enter a value for K, from 5 to 7:
6
Covering Array
Execution Times: 11
[0, 1, 1, 1, 0, 1]
[0, 0, 0, 0, 0, 0]
[0, 1, 0, 0, 1, 1]
[1, 1, 0, 1, 1, 0]
[1, 0, 1, 0, 0, 1]
[0, 0, 1, 1, 1, 0]
****

Covering Array
Execution Times: 48
[0, 0, 1, 1, 1, 0]
[0, 0, 0, 0, 0, 0]
[0, 1, 0, 0, 1, 1]
[1, 1, 1, 1, 0, 0]
[1, 0, 1, 0, 0, 1]
[1, 0, 0, 1, 1, 1]
****

Covering Array
Execution Times: 21
[0, 0, 0, 0, 0, 1]
[0, 0, 0, 1, 1, 0]
[0, 1, 1, 0, 0, 0]
[1, 0, 1, 0, 1, 0]
[1, 1, 0, 0, 1, 1]
[1, 1, 1, 1, 0, 1]

****

Covering Array

Execution Times: 7

[0, 1, 1, 0, 0, 0]

[0, 0, 0, 1, 1, 0]

[1, 1, 0, 1, 1, 0]

[0, 0, 0, 0, 0, 1]

[1, 0, 1, 1, 0, 1]

[1, 1, 1, 0, 1, 1]

****

Covering Array

Execution Times: 21

[0, 0, 1, 0, 0, 0]

[1, 0, 0, 0, 1, 0]

[0, 1, 0, 1, 0, 0]

[1, 1, 1, 1, 1, 0]

[1, 1, 0, 0, 0, 1]

[0, 0, 1, 1, 1, 1]

****

Covering Array

Execution Times: 17

[0, 0, 0, 0, 1, 1]

[0, 1, 0, 1, 0, 0]

[1, 1, 1, 1, 1, 1]

[1, 0, 1, 0, 0, 1]

[1, 0, 0, 1, 1, 0]

[0, 1, 1, 0, 1, 0]

****

Covering Array

Execution Times: 23

[0, 0, 1, 1, 0, 1]

[0, 0, 0, 0, 1, 0]

[0, 1, 0, 0, 0, 0]

[1, 0, 1, 0, 0, 1]

[1, 1, 1, 1, 1, 0]

[1, 1, 0, 1, 1, 1]

****

Covering Array

Execution Times: 55

[0, 0, 1, 0, 0, 1]

[1, 0, 0, 1, 0, 0]

[1, 0, 0, 0, 1, 1]

[1, 1, 1, 1, 0, 1]

[0, 1, 0, 0, 0, 0]

[0, 1, 1, 1, 1, 0]

****

Covering Array

Execution Times: 22

[1, 1, 1, 1, 0, 1]

[1, 0, 0, 1, 1, 1]

[0, 1, 0, 0, 0, 1]

[0, 1, 0, 0, 1, 0]

[1, 0, 1, 0, 0, 0]

[0, 0, 1, 1, 1, 0]
****
Covering Array
Execution Times: 57
[1, 0, 0, 0, 0, 0]
[0, 0, 0, 0, 1, 1]
[1, 0, 1, 1, 0, 0]
[1, 1, 1, 0, 1, 1]
[0, 1, 0, 1, 0, 1]
[0, 1, 1, 1, 1, 0]
****
Covering Array
Execution Times: 24
[0, 1, 0, 0, 1, 1]
[1, 1, 1, 0, 0, 0]
[1, 0, 0, 0, 0, 0]
[0, 0, 1, 1, 1, 0]
[1, 0, 1, 1, 1, 1]
[0, 1, 0, 1, 0, 1]
****
Covering Array
Execution Times: 25
[0, 1, 1, 0, 0, 0]
[1, 0, 1, 0, 1, 1]
[1, 0, 1, 1, 0, 0]
[0, 0, 0, 1, 0, 1]
[1, 1, 0, 1, 1, 1]
[0, 1, 0, 0, 1, 0]
****
Covering Array
Execution Times: 20
[0, 0, 0, 0, 1, 0]
[0, 1, 1, 1, 1, 0]
[1, 1, 1, 0, 0, 0]
[1, 0, 1, 1, 0, 1]
[0, 1, 0, 0, 0, 1]
[1, 0, 0, 1, 1, 1]
****
Covering Array
Execution Times: 47
[0, 0, 1, 0, 1, 0]
[0, 1, 1, 0, 0, 1]
[1, 0, 1, 1, 0, 1]
[1, 0, 0, 0, 0, 0]
[1, 1, 0, 0, 1, 1]
[0, 1, 0, 1, 1, 0]
****
Covering Array
Execution Times: 20
[0, 0, 1, 1, 0, 1]
[1, 0, 1, 0, 0, 0]
[1, 0, 0, 1, 1, 1]
[0, 1, 0, 0, 1, 1]

[0, 1, 0, 1, 0, 0]
[1, 1, 1, 1, 1, 0]
****
Covering Array
Execution Times: 42
[1, 0, 0, 0, 1, 0]
[0, 0, 1, 1, 1, 1]
[0, 1, 1, 0, 0, 0]
[0, 1, 0, 0, 0, 1]
[1, 0, 0, 1, 0, 1]
[1, 1, 1, 1, 1, 0]
****
Covering Array
Execution Times: 10
[0, 0, 0, 0, 0, 1]
[1, 0, 1, 0, 1, 1]
[1, 0, 1, 1, 0, 0]
[0, 1, 1, 1, 1, 1]
[0, 1, 0, 0, 0, 0]
[1, 1, 0, 1, 1, 0]
****
Covering Array
Execution Times: 34
[0, 0, 0, 0, 1, 0]
[0, 0, 1, 1, 0, 1]
[0, 1, 1, 1, 1, 0]
[1, 0, 0, 1, 1, 1]
[1, 1, 0, 0, 0, 0]
[1, 1, 1, 0, 1, 1]
****
Covering Array
Execution Times: 13
[0, 0, 0, 0, 1, 0]
[0, 0, 0, 1, 0, 1]
[1, 0, 1, 1, 1, 0]
[0, 1, 1, 1, 1, 1]
[1, 1, 1, 0, 0, 1]
[1, 1, 0, 0, 0, 0]
****
Covering Array
Execution Times: 38
[0, 0, 0, 1, 0, 0]
[1, 0, 0, 0, 1, 0]
[1, 0, 1, 1, 0, 1]
[0, 1, 1, 0, 0, 0]
[1, 1, 0, 1, 1, 1]
[0, 0, 1, 0, 1, 1]
****
Covering Array
Execution Times: 26
[0, 0, 0, 1, 0, 1]
[0, 0, 0, 0, 1, 0]
[0, 1, 1, 0, 0, 0]

[1, 0, 1, 0, 0, 1]
[1, 1, 0, 1, 1, 1]
[1, 0, 1, 1, 1, 0]
****
Covering Array
Execution Times: 18
[0, 0, 0, 0, 1, 0]
[1, 0, 0, 0, 1, 1]
[1, 1, 0, 1, 0, 0]
[0, 0, 1, 1, 0, 0]
[1, 1, 1, 0, 0, 1]
[0, 1, 1, 1, 1, 1]
****
Covering Array
Execution Times: 42
[0, 0, 0, 0, 0, 0]
[1, 0, 1, 1, 0, 1]
[1, 0, 0, 1, 1, 0]
[0, 1, 0, 0, 1, 1]
[1, 1, 1, 0, 1, 0]
[0, 1, 1, 1, 0, 1]
****
Covering Array
Execution Times: 30
[0, 0, 0, 1, 0, 0]
[0, 1, 0, 1, 1, 0]
[1, 1, 0, 0, 1, 1]
[1, 1, 1, 0, 0, 0]
[1, 0, 1, 1, 1, 1]
[0, 0, 1, 0, 0, 1]
****
Covering Array
Execution Times: 18
[0, 0, 1, 0, 0, 1]
[1, 0, 1, 1, 0, 0]
[0, 1, 0, 1, 0, 0]
[1, 1, 0, 0, 0, 1]
[0, 1, 1, 0, 1, 0]
[1, 0, 0, 1, 1, 1]
****
Covering Array
Execution Times: 37
[0, 0, 0, 0, 1, 1]
[1, 1, 0, 0, 0, 0]
[0, 0, 0, 1, 0, 0]
[1, 0, 1, 0, 0, 1]
[0, 1, 1, 1, 1, 0]
[1, 1, 1, 1, 1, 1]
****
Covering Array
Execution Times: 36
[0, 0, 0, 0, 1, 0]
[1, 0, 1, 1, 0, 0]

[0, 0, 0, 0, 0, 1]
[1, 1, 1, 0, 0, 0]
[1, 1, 0, 1, 1, 1]
[0, 1, 1, 1, 1, 1]
****

Covering Array
Execution Times: 34
[1, 0, 0, 0, 0, 0]
[0, 1, 1, 0, 0, 1]
[0, 0, 0, 0, 1, 1]
[0, 1, 1, 1, 1, 0]
[1, 1, 0, 1, 1, 1]
[1, 0, 1, 1, 0, 1]
****

Covering Array
Execution Times: 15
[0, 1, 0, 1, 1, 0]
[1, 0, 1, 1, 1, 1]
[1, 1, 0, 0, 0, 1]
[0, 0, 0, 0, 1, 1]
[1, 0, 1, 1, 0, 0]
[0, 1, 1, 0, 0, 0]
****

Covering Array
Execution Times: 67
[1, 0, 0, 0, 1, 0]
[0, 1, 0, 1, 1, 0]
[0, 0, 1, 1, 0, 0]
[1, 1, 0, 1, 0, 1]
[0, 1, 1, 0, 1, 1]
[1, 0, 1, 0, 0, 1]
****

Covering Array
Execution Times: 30
[0, 1, 0, 0, 0, 0]
[0, 1, 1, 1, 1, 1]
[1, 0, 0, 1, 1, 0]
[1, 0, 1, 0, 0, 0]
[0, 0, 0, 1, 0, 1]
[1, 1, 1, 0, 1, 1]
****

Please enter a value for K, from 5 to 7:
7
Covering Array
Execution Times: 71
[0, 0, 0, 0, 0, 0, 0]
[1, 1, 1, 0, 0, 0, 1]

[1, 0, 0, 1, 1, 0, 0]
[1, 0, 1, 1, 0, 1, 1]
[0, 1, 0, 1, 1, 1, 1]
[0, 1, 1, 0, 1, 1, 0]
****
Covering Array
Execution Times: 42
[0, 1, 1, 0, 0, 0, 0]
[1, 0, 0, 0, 0, 0, 1]
[1, 0, 1, 1, 1, 1, 0]
[0, 1, 1, 1, 0, 1, 1]
[1, 1, 0, 0, 1, 1, 1]
[0, 0, 0, 1, 1, 0, 0]
****
Covering Array
Execution Times: 84
[1, 1, 0, 0, 0, 0, 0]
[1, 0, 0, 0, 0, 1, 1]
[0, 0, 1, 0, 1, 0, 1]
[0, 0, 0, 1, 1, 1, 0]
[1, 1, 1, 1, 1, 1, 1]
[0, 1, 1, 1, 0, 0, 0]
****
Covering Array
Execution Times: 58
[1, 0, 0, 1, 0, 1, 0]
[0, 1, 0, 0, 0, 0, 0]
[0, 0, 0, 1, 1, 0, 1]
[1, 1, 1, 0, 1, 1, 1]
[1, 1, 1, 1, 1, 0, 0]
[0, 0, 1, 0, 0, 1, 1]
****
Covering Array
Execution Times: 33
[0, 0, 1, 1, 1, 0, 0]
[1, 0, 0, 0, 1, 0, 0]
[1, 1, 1, 1, 0, 0, 1]
[0, 1, 1, 0, 0, 1, 0]
[0, 0, 0, 0, 0, 1, 1]
[1, 1, 0, 1, 1, 1, 1]
****
Covering Array
Execution Times: 40
[1, 0, 0, 1, 1, 1, 1]
[0, 1, 1, 1, 1, 0, 0]
[1, 0, 0, 1, 0, 0, 0]
[1, 1, 1, 0, 0, 0, 1]
[0, 1, 0, 0, 1, 1, 1]
[0, 0, 1, 0, 0, 1, 0]
****
Frozen State
No Solution Found
****

Covering Array
Execution Times: 32
[1, 1, 1, 0, 0, 0, 0]
[0, 0, 0, 1, 0, 0, 0]
[0, 0, 0, 0, 0, 1, 1]
[0, 1, 1, 1, 1, 1, 0]
[1, 1, 0, 0, 1, 0, 1]
[1, 0, 1, 1, 1, 1, 1]
****

Covering Array
Execution Times: 87
[0, 0, 0, 0, 0, 0, 1]
[0, 0, 1, 0, 0, 1, 0]
[0, 1, 0, 1, 1, 0, 1]
[1, 0, 1, 1, 1, 0, 0]
[1, 1, 0, 1, 0, 1, 0]
[1, 1, 1, 0, 1, 1, 1]
****

Covering Array
Execution Times: 28
[0, 0, 0, 0, 0, 0, 0]
[0, 1, 1, 0, 0, 1, 0]
[0, 1, 0, 1, 1, 0, 1]
[1, 0, 0, 0, 1, 1, 1]
[1, 1, 1, 1, 0, 1, 1]
[1, 0, 1, 1, 1, 0, 0]
****

Covering Array
Execution Times: 126
[0, 0, 1, 0, 0, 0, 0]
[0, 1, 0, 1, 1, 0, 0]
[1, 0, 0, 0, 1, 0, 1]
[0, 1, 0, 0, 0, 1, 1]
[1, 0, 1, 1, 0, 1, 1]
[1, 1, 1, 1, 1, 1, 0]
****

Covering Array
Execution Times: 46
[0, 0, 1, 0, 1, 1, 0]
[0, 0, 1, 1, 0, 1, 1]
[1, 0, 0, 0, 0, 0, 0]
[1, 1, 0, 1, 1, 1, 0]
[1, 1, 1, 0, 1, 0, 1]
[0, 1, 0, 1, 0, 0, 1]
****

Covering Array
Execution Times: 62
[0, 0, 1, 0, 0, 0, 0]
[0, 1, 1, 0, 0, 1, 1]
[0, 0, 0, 1, 1, 0, 1]
[1, 1, 0, 1, 0, 1, 0]
[1, 1, 1, 1, 1, 0, 1]
[1, 0, 0, 0, 1, 1, 0]

****
Covering Array
Execution Times: 62
[1, 1, 0, 1, 0, 1, 0]
[1, 0, 1, 0, 1, 1, 1]
[0, 1, 0, 0, 0, 0, 1]
[1, 0, 1, 1, 0, 0, 0]
[0, 1, 1, 0, 1, 0, 0]
[0, 0, 0, 1, 1, 1, 1]
****
Covering Array
Execution Times: 44
[0, 0, 1, 0, 0, 1, 0]
[0, 0, 0, 1, 0, 0, 1]
[1, 1, 0, 1, 0, 0, 0]
[0, 1, 0, 0, 1, 1, 0]
[1, 1, 1, 0, 1, 0, 1]
[1, 0, 1, 1, 1, 1, 1]
****
Covering Array
Execution Times: 44
[0, 0, 1, 0, 0, 0, 1]
[0, 0, 0, 0, 1, 0, 0]
[1, 1, 0, 1, 0, 0, 0]
[1, 0, 1, 1, 1, 1, 1]
[1, 1, 0, 0, 1, 1, 1]
[0, 1, 1, 1, 0, 1, 0]
****
Covering Array
Execution Times: 49
[0, 0, 0, 0, 0, 1, 0]
[1, 0, 1, 1, 1, 1, 0]
[0, 1, 1, 1, 0, 0, 0]
[1, 1, 1, 0, 0, 1, 1]
[0, 0, 0, 0, 1, 0, 1]
[1, 1, 0, 1, 1, 0, 1]
****
Covering Array
Execution Times: 89
[0, 1, 0, 0, 0, 1, 1]
[1, 1, 1, 0, 0, 0, 0]
[0, 1, 0, 1, 1, 0, 0]
[0, 0, 1, 1, 1, 0, 1]
[1, 0, 0, 1, 0, 1, 0]
[1, 0, 1, 0, 1, 1, 1]
****
Covering Array
Execution Times: 34
[1, 0, 0, 0, 1, 1, 1]
[0, 0, 1, 0, 0, 1, 0]
[0, 1, 0, 1, 1, 1, 0]
[1, 1, 1, 1, 1, 0, 1]
[1, 0, 0, 1, 0, 0, 0]

[0, 1, 1, 0, 0, 0, 1]
****
Covering Array
Execution Times: 30
[1, 0, 1, 0, 0, 0, 0]
[0, 0, 1, 1, 1, 1, 0]
[1, 1, 0, 1, 0, 1, 1]
[0, 1, 1, 1, 0, 0, 1]
[0, 1, 0, 0, 1, 1, 0]
[1, 0, 0, 0, 1, 0, 1]
****
Covering Array
Execution Times: 21
[1, 0, 1, 0, 0, 0, 0]
[0, 1, 1, 0, 1, 0, 0]
[1, 0, 0, 1, 1, 0, 1]
[0, 0, 0, 0, 0, 1, 1]
[0, 1, 0, 1, 1, 1, 0]
[1, 1, 1, 1, 0, 1, 1]
****
Covering Array
Execution Times: 30
[0, 0, 0, 1, 0, 0, 0]
[0, 0, 0, 0, 1, 0, 1]
[0, 1, 1, 0, 1, 1, 0]
[1, 1, 0, 1, 1, 1, 0]
[1, 1, 1, 0, 0, 0, 1]
[1, 0, 1, 1, 0, 1, 1]
****
Frozen State
No Solution Found
****
Covering Array
Execution Times: 37
[0, 0, 1, 0, 1, 1, 0]
[0, 1, 0, 0, 0, 1, 1]
[1, 0, 1, 1, 0, 0, 1]
[0, 1, 1, 1, 0, 0, 0]
[1, 1, 0, 0, 1, 0, 1]
[1, 0, 0, 1, 1, 1, 0]
****
Covering Array
Execution Times: 61
[0, 0, 0, 0, 0, 0, 0]
[0, 1, 0, 0, 0, 1, 1]
[1, 1, 1, 1, 0, 1, 0]
[1, 0, 0, 1, 1, 0, 0]
[0, 0, 1, 1, 1, 1, 1]
[1, 1, 1, 0, 1, 0, 1]
****
Covering Array
Execution Times: 44
[0, 0, 0, 1, 1, 0, 0]

[1, 0, 0, 0, 0, 1, 1]
[1, 0, 1, 1, 0, 0, 0]
[0, 1, 1, 0, 0, 1, 0]
[1, 1, 1, 1, 1, 1, 1]
[0, 1, 0, 0, 1, 0, 1]
****

Covering Array
Execution Times: 36
[0, 0, 0, 0, 1, 1, 0]
[0, 1, 0, 0, 0, 0, 1]
[1, 0, 1, 0, 1, 1, 1]
[1, 1, 0, 1, 1, 0, 0]
[0, 0, 1, 1, 0, 0, 1]
[1, 1, 1, 1, 0, 1, 0]
****

Covering Array
Execution Times: 94
[0, 0, 0, 1, 0, 1, 0]
[0, 0, 1, 0, 1, 0, 1]
[0, 1, 0, 0, 0, 0, 1]
[1, 1, 0, 1, 1, 0, 0]
[1, 1, 1, 0, 1, 1, 0]
[1, 0, 1, 1, 0, 1, 1]
****

Covering Array
Execution Times: 19
[0, 0, 0, 1, 0, 0, 0]
[1, 1, 0, 1, 0, 1, 0]
[0, 0, 0, 0, 1, 1, 1]
[1, 0, 1, 0, 0, 1, 1]
[0, 1, 1, 1, 1, 0, 1]
[1, 1, 1, 0, 1, 0, 0]
****

Covering Array
Execution Times: 94
[0, 0, 0, 0, 1, 0, 1]
[0, 0, 1, 1, 0, 0, 0]
[1, 1, 0, 0, 0, 0, 0]
[1, 0, 0, 1, 1, 1, 0]
[1, 1, 1, 1, 1, 1, 1]
[0, 1, 1, 0, 0, 1, 1]
****

Covering Array
Execution Times: 43
[0, 0, 0, 0, 1, 0, 0]
[1, 0, 1, 0, 0, 0, 1]
[0, 0, 1, 1, 0, 1, 0]
[1, 1, 0, 1, 0, 0, 1]
[0, 1, 0, 1, 1, 1, 1]
[1, 1, 1, 0, 1, 1, 0]
****