

Lab Goal : This lab was designed to review basic class creation, method creation, matrices, nested loops, and searching.

Lab Description : Write a class that will randomly load a matrix with integer values that range from 1 to an upper bound, inclusive of the upper bound. Write a method to find a max prime. The max prime in a matrix is the prime number with the largest surrounding sum.

Sample Data :

20, 15, 50
15, 15, 75
7, 7, 100

Files Needed ::

MatrixSearch2.java
MatrixSearch2Runner.java

Sample Output :

```
16 24 43 11 39 3 4 5 25 47 50 41 23 14 43
36 49 45 33 2 12 14 24 10 3 38 15 34 25 48
37 34 7 22 43 43 31 48 10 48 9 25 29 18 1
14 46 11 19 27 12 38 32 2 16 1 8 14 34 39
8 27 2 41 7 26 8 21 33 2 33 42 43 24 6
48 26 8 32 26 6 26 4 37 2 25 46 21 31 14
2 13 42 5 35 28 9 17 19 11 1 45 44 27 12
21 20 21 34 50 44 36 2 29 36 26 25 35 33 38
25 29 12 16 4 28 28 37 24 45 33 41 25 40 48
48 4 44 17 27 13 44 47 15 13 31 7 20 25 10
31 20 44 11 43 28 17 49 32 10 37 7 46 45 19
4 1 29 31 34 26 43 4 5 23 8 49 2 44 49
19 3 36 29 3 27 27 25 36 26 34 30 32 38 25
25 26 46 5 50 15 33 12 36 29 39 22 8 21 6
3 3 4 19 5 32 44 19 22 3 2 34 38 16 17
17 50 17 30 22 4 35 38 31 26 21 12 32 29 31
12 42 3 28 47 40 36 27 15 35 7 28 49 36 18
45 25 35 24 33 36 41 1 11 50 18 35 37 28 7
44 16 45 37 6 44 1 23 17 25 11 17 29 35 33
17 23 20 22 23 32 48 13 45 30 23 43 11 47 34
```

Max Prime = 47

```
15 52 31 48 45 20 30 38 34 6 41 71 50 74 32
75 26 46 75 23 34 69 46 25 60 66 72 19 59 48
23 35 22 27 34 64 14 10 13 56 16 26 17 61 72
44 46 33 33 18 49 32 39 15 52 61 44 29 48 14
56 11 59 57 8 42 59 69 38 8 21 57 69 45 12
67 38 59 8 18 57 67 52 20 16 36 37 6 75 49
66 52 35 36 59 9 64 13 18 19 66 74 71 71 11
49 70 47 35 57 69 2 1 1 19 36 62 51 22 26
29 7 10 33 64 75 62 64 69 67 45 70 70 59 51
32 59 68 3 74 72 17 37 17 42 49 56 50 61 24
49 44 9 74 60 61 60 25 29 66 10 55 43 8 43
19 41 64 56 60 23 57 27 56 14 44 28 57 41 32
28 41 19 70 67 42 21 63 5 27 8 2 35 67 16
45 24 42 46 38 70 29 40 73 65 18 4 11 27 41
1 40 32 40 2 26 23 12 17 14 39 21 19 41 62
```

Max Prime = 41

```
80 43 81 79 29 75 53
34 24 33 57 41 80 91
28 77 23 58 56 77 7
48 57 66 86 3 59 63
8 29 78 27 43 88 92
50 65 54 56 58 56 32
```

41 66 73 67 9 100 94
Max Prime = 67