

LoopsLab2 - Computer Science 1 Pre-AP

The following lab is to help you understand the usage of for loops, while loops, if statements and nested loops in Python. The following mini labs will help with the syntax required to correctly create a loop and use the loop to get the desired output for each of the mini labs.

mini lab #10 - diagonalNStars:

Write a **return** method that will receive one integer parameter (user input) **num**, then output the **stars** in a **diagonal** using a **for** loop. Test your code by using **5**, **12**, and **3** to see if it prints the correct numbers of stars. Hint: An if statement and nested a for loop might be useful.

mini lab #11 - reverseDiagonalNStars:

Write a **return** method that will receive one integer parameter (user input) **num**, then output the **stars** in a **reverse diagonal** using a **while** loop. Test your code by using **5**, **12**, and **3** to see if it prints the correct numbers of stars. Hint: An if statement and nested a for loop might be useful.

mini lab #11 - VStars:

Write a **return** method that will receive one integer parameter (user input) **num**, then output the **stars** in a **reverse diagonal** using a **while** loop. Test your code by using **5**, **12**, and **3** to see if it prints the correct numbers of stars. Hint: An if statement and nested a for loop might be useful.

mini lab #12 - diamondNStars:

Write a **return** method that will receive one integer parameter (user input) **num**, then output the **stars** in a **reverse diagonal** using a **while** loop. Test your code by using **5**, **7**, and **4** to see if it prints the correct numbers of stars. Hint: An if statement and nested a for loop might be useful.

OUTPUT SHOULD BE AS FOLLOWS:

```
----jGRASP exec: python LOOPSLAB.PY
```

```
mini lab #10 - diagonalNStars
```

```
Enter the number of stars to be printed: 5
```

```
*
```

```
 *
```

```
  *
```

```
   *
```

```
    *
```

```
Enter the number of stars to be printed: 12
```

```
*
```

```
 *
```

```
  *
```

```

*
 *
  *
   *
    *
     *
      *
       *
        *

```

Enter the number of stars to be printed: 3

```

*
 *
  *

```

mini lab #11 - reverseDiagonalNStars

Enter the number of stars to be printed: 5

```

 *
*
 *
*
 *

```

Enter the number of stars to be printed: 12

```

      *
     *
    *
   *
  *
 *
*
 *
*
 *
*
 *
*
 *

```

Enter the number of stars to be printed: 3

```

*
 *
  *

```

mini lab #12 - VStars

Enter the number of stars to be printed: 5

```

*           *
*         *
*       *
*     *
*   **

```

Enter the number of stars to be printed: 12

```

*                               *
*                             *
*                           *
*                         *
*                       *
*                     *
*                   *
*                 *
*               *
*             *
*           *
*         *
*       *
*     *
*   *
* **

```

Enter the number of stars to be printed: 3

```

*     *
*   *
* **

```

mini lab #13 - diamondNStars

Enter the number of stars to be printed: 5

```

*
* *
*   *
*     *
*       *
*         *
*           *
*             *
*               *

```

Enter the number of stars to be printed: 7

```

*
* *
*   *
*     *
*       *
*         *
*           *
*             *

```

```
  *           *
 *           *
 *           *
 *           *
 *           *
 *           *
 *
```

Enter the number of stars to be printed: 4

```
  *
 * *
 *   *
*     *
 *   *
 * *
 *
```

----jGRASP: operation complete.