

# Python

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## Question 1

Write a Python function that adds the values of two lists into new list. Example:

```
a = [1, 2, 3]
b = [4, 5, 6]
```

Should give [5, 7, 9]

```
def exercise1(array1, array2):
    pass #Write your code here!
```

```
a = [1, 2, 3]
b = [4, 5, 6]
exercise1(a,b)
```

## Question 2

Write a Python function that gives the following output:

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

```
def exercise2():
    pass #Write your code here!

exercise2()
```

## Question 3

Write a Python function that generates the following 2D array:

```
[[5, 5, 5],  
 [6, 6, 6],  
 [7, 7, 7]]
```

```
def exercise3():  
    pass #Write your code here!  
  
exercise3()
```

## Question 4

You and your group are lost in a forest and the sun is shining from the North East. The "x" in the 2D array represents the people of your group and number 1 represents a tree. The question is who in your group is in the shadow of the trees! Because the sun shines from the North East you have to check diagonally if there is a tree right above the group member. The function should return the positions of the group members in a tuple in a array. The solution should be [(1,1) , (1,2), (3,1)]

```
def exercise4(array):  
    pass #Write your code here!
```

```
array = [[1, 0, 1, 1, 0 ],  
         [0, "x", "x", 0, 0 ],  
         [1, 0, 1, 1, "x"],  
         [0, "x", 0, 1, 0 ]]
```

```
exercise4(array)
```

