day28 functions
Due: Wednesday 10/25/23

Today's assignment:

Create new repl called day28 functions.

1.

Write a function that prints your name. Name the function printName() like this:

```
def printName():
```

The function needs to print your first and last names, and then print your name centered in 25 stars, then your name all uppercase.

Call the function by putting this line in your program, below where you defined the function, not indented:

```
printName()
```

2.

Write a function called **printStars** that accepts a number and prints that many stars on a single line. You will start by writing this line:

```
def printStars(num):
```

Then, indented one level, write a for loop that prints num stars all on one line, then prints a blank line. Test your code by putting a line below your function that looks like this:

```
printStars(10)
```

Make sure this line is not inside of the function (it has to be unindented all the way to the left.) Here is sample output for the call printStars(10):

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

3.

Write a function called **printList** that accepts a list variable and a number, and then prints the list in that many columns. Start like this:

```
def printList(theList,columns):
```

Then, inside the function, write code that prints all of the items in the list (use a for loop) in the right number of columns (whatever the variable columns is). Put tabs between list items. At the end print a blank line so that you are safely out of column printing mode.

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Test the function by adding these lines below it, not indented:

```
myList = [1,3,5,7,9,11,13,15,17,19]
printList(myList,3)
print()
printList(myList,5)
```

You will get the following output:

```
1       3       5
7       9       11
13      15      17
19

1       3       5       7       9
11      13      15      17      19
```

Can you see how the above shows the list printed in three columns, then again in 5 columns?

Make your function work even if your list variable doesn't contain numbers. Add a third test as follows:

```
myList=["a","b","c","d","e","f","g","h","i","j","k"]
printList(myList,4)
```

You should get the following:

```
a       b       c       d
e       f       g       h
i       j       k
```

4.

Write a function called **primeCheck** that accepts a number, doesn't print anything, and uses a return call to say if a number is prime or not.

Start like this:

```
def primeCheck(num):
```

Then inside, check if num is prime. If it is return "prime", if it is not return "composite" (in math talk that means "not prime".) Your function should not print anything. We learned how to figure out if a number is prime in our day21 assignment. You should be able to copy some of that code.

Test your code with the following:

```
print(400,primeCheck(400))
print(401,primeCheck(401))
```

The output should be:

```
400 composite
401 prime
```

(more on next page)

5. Write a function that accepts a piece of text and then prints a box of stars like this:

```
printBox("Hays")

**********
*  Hays  *
**********

printBox("I love ice cream")

**********************
*  I love ice cream  *
**********************
```

In words, this function accepts a string argument and then prints a box that is made up of stars. The first line has as many stars as the text is long, plus six, then the second line is "* " (that's a star and 2 spaces), then the text, then closes with another two spaces and a star. The third line is the same as the first line.

Call me over to see what you did before you consider yourself done. Then turn in a share link on the Google Classroom when you are done.