CS21 Assignment #5
Please use the given name for your script!

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BE SURE TO READ THE REMINDERS AT THE END OF THIS ASSIGNMENT! Just because your program functions, does not mean you will receive full credit!

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REMEMBER:

Any work you submit for this assignment should be authored entirely by yourself. Assistance is permitted from the instructor or teaching assistants only. All submitted programming assignments are subject to originality verification through software designed and used for the Measure Of Software Similarity (MOSS).

While the internet can be used as a resource for concepts and ideas, you are not permitted to use code that you did not author.

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1. (randomGames.py) In this script we will allow the user to play several games that involve randomness. They will be able to roll dice, or play Bingo. Your script you must have 4 functions:
    - A main function
    - A function that prints the menu of options for the screen
    - A function that simulates the rolling of dice.
        - The user selects the number of dice to be rolled and the number of sides on each die (all dice have the same number of sides)
            - Both the number of dice and the number of sides must be positive numbers
        - The script will display each individual roll as well as the total of all the rolls
    - A function that simulates a random Bingo draw
        - A Bingo draw has two related parts, a column letter and a number.
        - The column letter is determined by the number according to the following table

Column	Numbers
B	1 through 15
I	16 through 30
N	31 through 45
G	46 through 60
O	61 through 75

You may decide what, if any, parameters your functions will need.

Example run:

```
Use the numbers to select an option:
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? 5
Please pick an option from the menu!
Use the numbers to select an option:
```

```
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? -2
Please pick an option from the menu!
Use the numbers to select an option:
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? 1
How many dice do you want to roll? -4
Number of dice must be greater than 0!
How many dice do you want to roll? 4
How many sides are on each die? -7
Number of sides must be greater than 0!
How many sides are on each die? 8
Roll number 1 is 4
Roll number 2 is 8
Roll number 3 is 7
Roll number 4 is 1
Total of all rolls is: 20
Use the numbers to select an option:
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? 2
The next number in Bingo is: B5
Use the numbers to select an option:
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? 2
The next number in Bingo is: B7
Use the numbers to select an option:
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? 2
The next number in Bingo is: G60
Use the numbers to select an option:
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? 2
The next number in Bingo is: N33
Use the numbers to select an option:
1: Roll some dice!
2: Play Some Bingo!
3: Quit
What option do you choose? 3
```

```
>>>
```

Reminders (not following will result in point deductions):

Use constants! No magic numbers!

Only constants should be global variables. All other data that a function needs should be passed as an argument to the function.

It is expected that you will complete the same process of development that use in class. When you reach the point of having an algorithm (pseudocode), this will become the comments of your program as a starting point for writing code. Comment first, then code!

Be sure to include comments at the top of the program that include your name, class and a short description of the program.

Each function should begin with a comment describing the task the function will perform.

Be sure all output is formatted.

Random numbers in Python

Recall how we created random number in lab 4:

To generate a random number, you need to import the random module. This is done with the following statement:

```
import random
```

at the top of your program. Then, to generate a random number, use the randint function.

```
number = random.randint(LOW,HIGH)
```

At this point, your program should generate one number between 1 and 100 (assuming LOW is 1 and HIGH is 100). Run it a few times to convince yourself it is generated random numbers.