Lesson 9a: Random Integer Numbers

This example will print 10 random integer numbers from 1 to 100 including 1 and 100.

```
import random
num = 0
while num <10:
    print(random.randint(1,100))
    num=num+1
```

Lesson 9b: Random Real Numbers

This example will print 10 random real numbers from 0 to 1, including 0 but not including 1.

```
import random
num = 0
while num <10:
    print(random.random())
    num=num+1
```

Homework for Lesson 9

Do the following using Python 3

1) Build the game – guess a number but have them say what the lowest and highest number is. Make sure you tell them how many guesses will be needed.
2) Do the same game but then have the computer do the guessing. Hint: use int to get integers like int(6.5) will give 6.
3) I want your program to be a psychic reader. Choose whatever values you want. But I want you to do the following….
   a. Tell them if it will rain or not. (EXAMPLE: you decide 20% chance so you get random number from 1-100 and if it is 20 or less it rains. So, tell them it will rain today).
   b. Tell them how many kids they will have
   c. Tell the how long they will live
   d. Tell them how they will die (murdered, old age, giving birth, etc…..)
   e. Tell them how many times they will marry
   f. Tell them if they will be a millionaire or not.
   g. Etc… your choice - have fun!!!!!
4) I want you to roll 5 6-sided dice 10 times and tell the average number of points you got each time.
5) Pick a number between 0 and 999. Now have the computer guess a number between 0 and 999. If you get it right then you win $750. If you get it wrong, you lose $1. If you played 1000 times, do you think you will win or lose money? Find out. Give your bank balance after 1000 tries. Do it 10 times. This is SIMILAR to the lotter for pick 3.
6) Write a program that prints out a float from 5.5 to 95.5 (not including 95.5)
7) Have someone choose heads or tails on a coin flip. Then run the flip 100 times and see if they win!
8) Do the same as #7 but then run the 100 try test 5 times.
9) You are taking a test that you have no clue how to do any question. So, you decide to flip a coin. But, you do it twice. If you get the same answer for both flips of the coin then you got the answer correct. If one has heads and tails then you got it wrong. Example: Question 1. You flip coin and you got Heads then you flip again and you got Tails. So, you got the answer wrong. If both times are heads or both times are tails then you got the answer wrong. What is your grade in the class?
10) Do #9 10 times. What is the average grade? What is the lowest and highest grade?