**Randomness**

Reference: Gaddis 4.11



Topics: Random numbers



**What if I want randomness in my program? Do something by a probability?**



Use the class



* Gives you the next pseudorandom number in its sequence



Import:



Random rand = new Random(); //declare & instantiate object



int luckyNumber = rand.nextInt(100);

rand.nextInt(100) generates a random integer in the range



*How would you generate an integer in the range 1-10?*

int num = rand.nextInt(



*in the range 21-50?*



**Let’s Test it Out**



* Open testRandom.java from your ClassExamples repository
* Complete the code to write to a file MAX random numbers in the range of 0-19. Open the .csv file you just created in Notepad or Notepad++ and look at the values to see if you did it correctly.



* Modify your code to now write to a NEW file, MAX random numbers in the range of 50-100
* Draw flowchart:



**Example**: High-Low game

*Problem*: You roll 2 dice. Before rolling, the player bets on whether it will be high (8-12), low(2-6), or seven. They win if they guess correctly.

*Algorithm:*

1. Ask the user to place their bet on high, low, or seven



1. Read in their bet



1. \*Roll the dice by



1. If you rolled high and they guess high
   1. Tell them congrats, it was high!
2. \*Otherwise if



* 1. Tell them congrats, it was low!

1. \*Otherwise if



* 1. Tell them congrats it was seven!

1. \*Otherwise



* 1. \*Tell them



1. Thank them for playing

**Flowchart :**