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**Program Structures & Algorithms**

**Fall 2021**

**Assignment No. 1** **(Random Walk)**

* **Task:**

1. Clone/pull from the class repository and complete *RandomWalk.java*;
2. Ensure all the unit tests successfully run and pass;
3. Run the experiment for at least six values of n and run each of these at least ten times;
4. According the data of the experiments, draw the relationship picture;
5. Analyze and find the relationship conclusion.

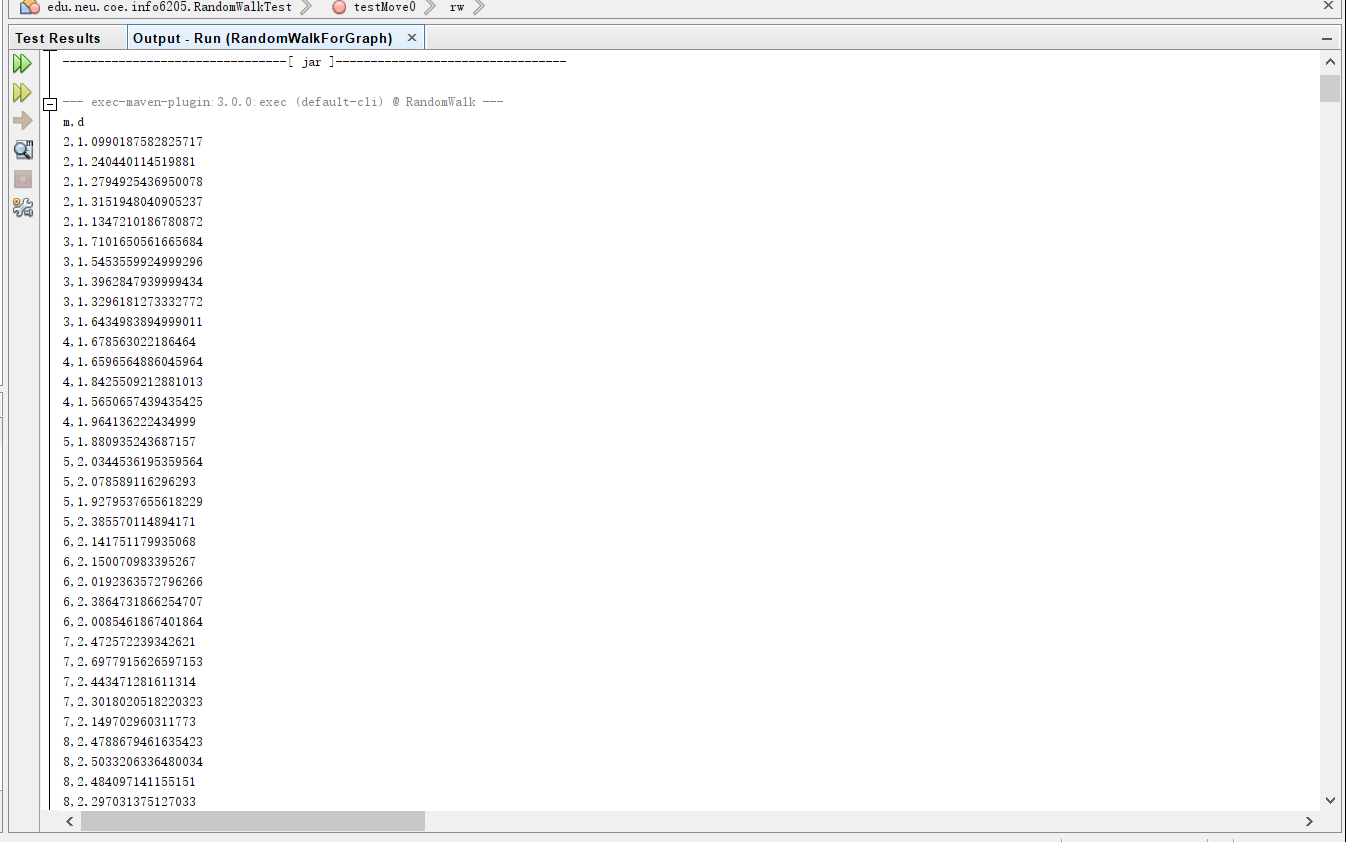
* **Relationship Conclusion:**

n: the number of steps;

d: the distance between the terminal point and original point.

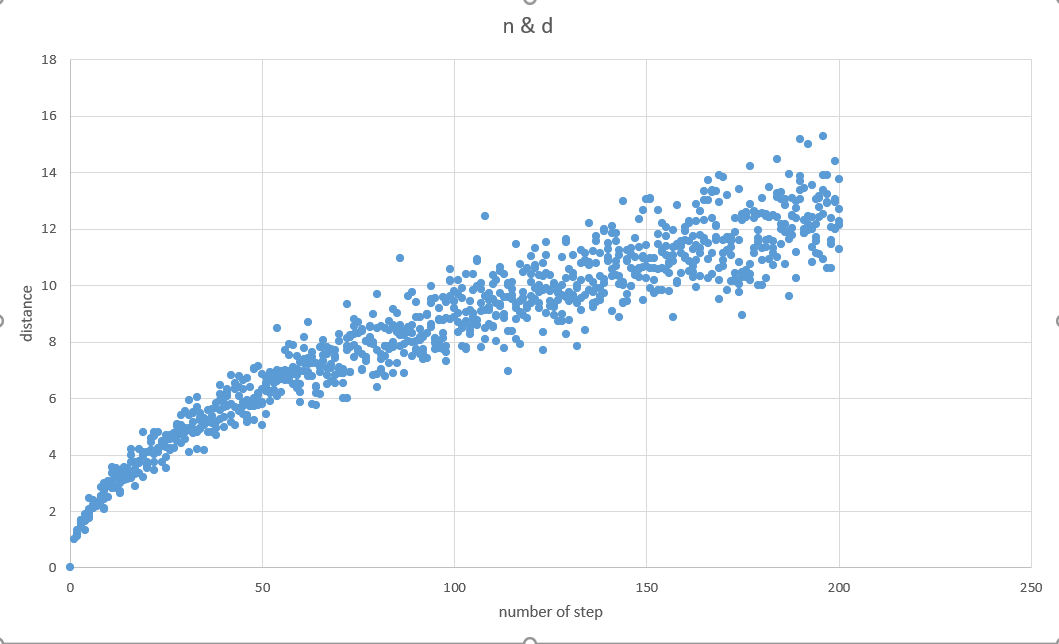
* **Evidence to support the conclusion:**

1. **Output :**

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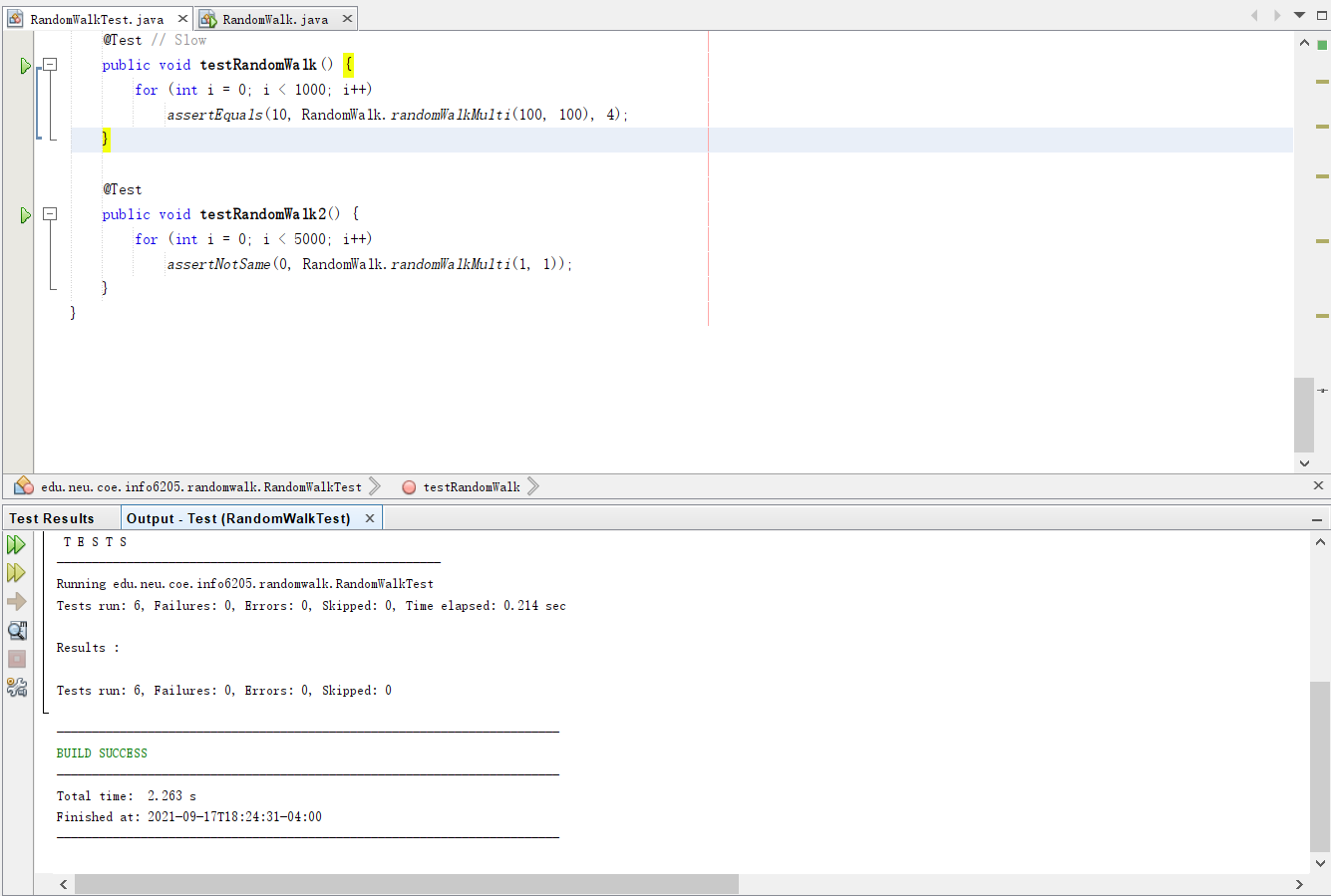
**Picture1.The output(data) of program for evidence**

1. **Graphical Representation:**

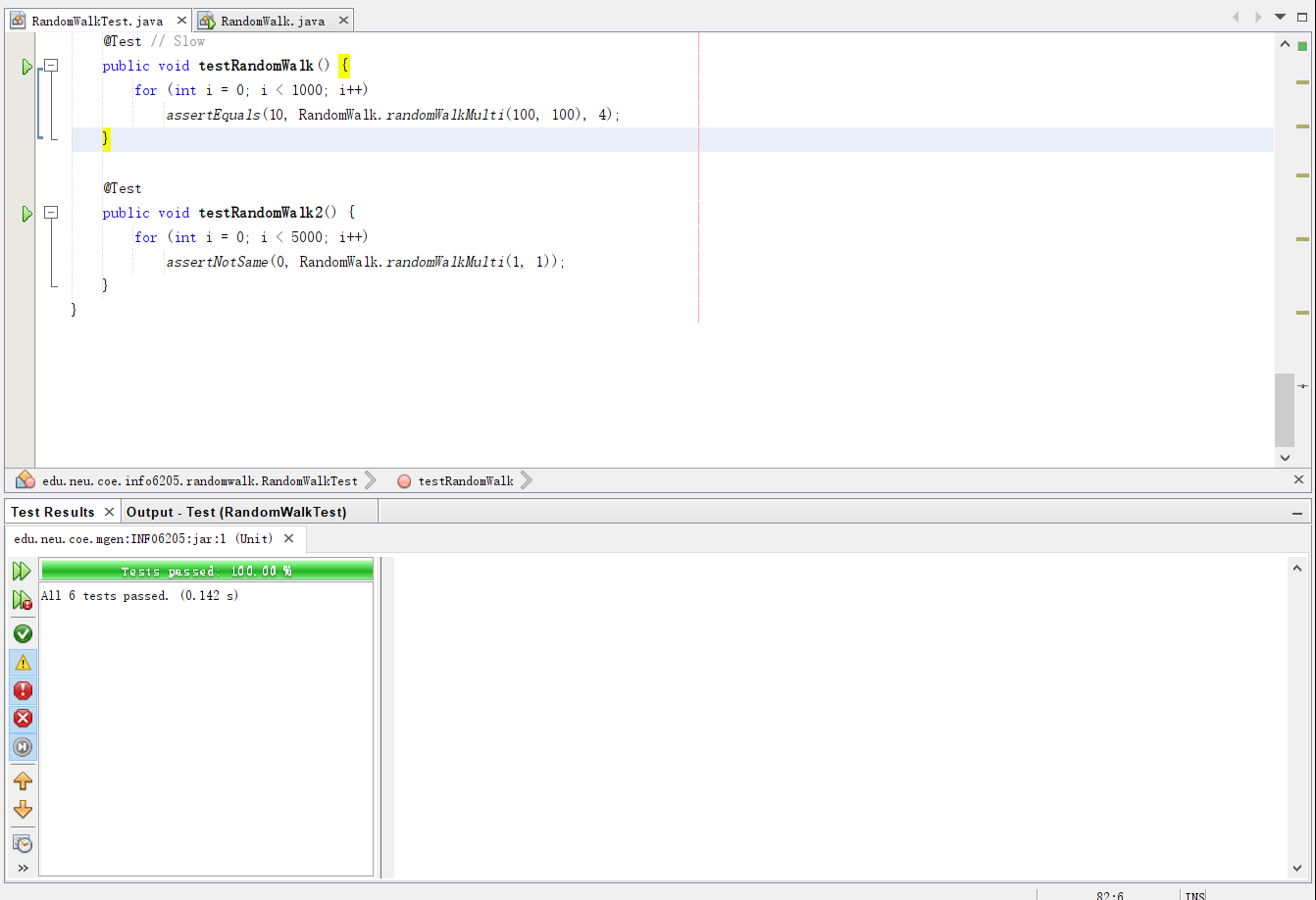
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**Picture2.The graph of relationship between n and d**

* **Unit tests result:**



**Picture3.The output of test**



**Picture4.The test result**