

A) My assumptions.

- *Self-loop is counted as edges e.g (1,1)*
- *any input other than int in input1 is considered invalid input*
- *The valid input in input2 is in given format {{},{}} and input2[0][i] and input2[1][i] must contain integers else it is considered invalid input.*
- *Number of nodes start from 1.*
- *Number of edges cannot be more than the number of nodes.*

B) Please code in Python and ensure that if you copy and paste your code on <https://www.programiz.com/python-programming/online-compiler/>, it works.

Yes, my code is working fine.

C) Please ensure that your code accepts inputs exactly as given in the test example. This is extremely important.

Yes, my code accepts inputs exactly as given in the test example.

D) Please do tell us at least 4 unique positive test cases and at least 2 negative test cases you used. Higher the number of unique cases, the better. A trivial sample test case is also given.

Positive Test cases:

Test case 1:

input1: 4

input2: {{1,1,1},{2,3,4}}

output: 3

Reason: The Output is 3 since the following 3 lines can drawn ((1, 2), (1, 3), (1, 4)).

Test case 2:

Input1: 10

Input2: {{1,2,1,9,8,7,1},{2,1,3,4,9,1,7}}

Output: 5

Reason: The Output is 5 since the following 5 lines can drawn ((1, 2), (1, 3), (9, 4), (8, 9), (7, 1))

Test case 3:

Input1: 5

Input2: {{},{}}

Output: 0

Reason: The Output is 0 since the following 0 lines can drawn ()

Test case 4:

Input1: 5

Input2: {{1,1,1,5,5},{1,3,4,5,5}}

Output: 4

Reason: The Output is 4 since the following 4 lines can drawn ((1, 1), (1, 3), (1, 4), (5, 5))

Negative Test cases:

Test case 1:

Input1: 5

Input2: {{1,1,1,5,5},{1,3,4,5,0}}

Output: invalid input

Reason: The Output is invalid because edges are more then number of nodes or there is 0.

Test case 2:

Input1: 4

Input2: {{1,1,1,1},{1,2,3,400}}

Output: invalid input

Reason: The Output is invalid because edges are more then number of nodes or there is 0 or less then 0.

Test case 3:

input1 :abc

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Invalid input as your are giving improper input in input1 or in input2 or number of nodes are not equal to number of edges.

Test case 4:

input1 :4

input2 : abc

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Invalid input as your are giving improper input in input1 or in input2 or number of nodes are not equal to number of edges.

Test case 5:

Input1: 4

Input2: {{1,1,1,1},{1,2,3,-4}}

Output: invalid input

Reason: The Output is invalid because edges are more then number of nodes or there is 0 or less then 0.