



4 / 12 Completed

01:11:47

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End test



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```
}  
}  
int main()  
{  
    int number,x;  
  
    number = 5671;  
  
    x=fun(number);  
  
    printf("%d",x);  
  
    return 0;  
}
```

☐ 4

☒ 19

☐ 14

☐ 1765

[Reset Answer](#)

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4 / 12 Completed

01:11:35

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End test



## Question 5

Max. score: 6.00

What is the output of the following C code:

Code:

```
#include<stdio.h>
int main()
{
    int i, n;
    char *x="Hacker";
    n = strlen(x);
    *x = x[n];
    for(i=0; i<=n; i++)
    {
        printf("%s ", x);
        x++;
    }
    printf("\n", x);
    return 0;
}
```

☐ Compilation error☐ Run-time error☐ er



4 / 12 Completed

01 : 11 : 22

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End test



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```
int i, n;
char *x="Hacker";
n = strlen(x);
*x = x[n];
for(i=0; i<=n; i++)
{
    printf("%s ", x);
    x++;
}
printf("\n", x);
return 0;
}
```

☐ Compilation error☐ Run-time error☐ er☐ Hacker[Reset Answer](#)[Previous Question](#)[Next Question >](#)



5 / 12 Completed

01 : 10 : 59

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End test



### Question 6

Max. score: 2.00

In C++, which of the following is an example of the **static** polymorphism?

☐ Operator overloading

☐ Function overloading

☐ Both of these

☐ None of these

Reset Answer

[< Previous Question](#)

[Next Question >](#)



5 / 12 Completed

01:10:41

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End test



### Question 6

Max. score: 2.00

In C++, which of the following is an example of the **static** polymorphism?

☐ Operator overloading

☐ Function overloading

☐ Both of these

☐ None of these

Reset Answer

[< Previous Question](#)

[Next Question >](#)



6 / 12 Completed

01:10:14

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End test



### Question 7

Max. score: 2.00

Consider you are working on RDBMS. So based on your experience, you have concluded few statements about the RDBMS.

Which of the following statements is correct?

#### Statements

1. RDBMS contains Normalization.
2. Distributed databases are not supported by RDBMS.

☐ only 1

☐ only 2

☐ Both 1 and 2

☐ None of these

[Reset Answer](#)

[Previous Question](#)

[Next Question](#)



7 / 12 Completed

01 : 09 : 38

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End test

## Code

```
<style>
    .cell,
    .tab {
        border: 0.3px solid black;
        border-collapse: collapse;
    }
</style>
<table class="tab">
    <tbody>
        <tr>
            <th class="cell">Sl No.</th>
            <th class="cell">Username</th>
            <th class="cell">Status 1 </th>
            <th class="cell">Status 2 </th>
        </tr>
        <tr>
            <td class="cell">1</td>
            <td class="cell">John</td>
            <td class="cell">Logged out</td>
            <td class="cell">Logged out</td>
        </tr>
        <tr>
            <td class="cell">2</td>
            <td class="cell">Ben</td>
            <td class="cell" rowspan="2">Logged in</td>
            <td class="cell" rowspan="2">Logged in</td>
        </tr>
```



7 / 12 Completed

01 : 09 : 46

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End test



## Question 8

Max. score: 6.00

What is the output of the following HTML snippet:

## Code

```
<style>
  .cell,
  .tab {
    border: 0.3px solid black;
    border-collapse: collapse;
  }
</style>
<table class="tab">
  <tbody>
    <tr>
      <th class="cell">Sl No.</th>
      <th class="cell">Username</th>
      <th class="cell">Status 1 </th>
      <th class="cell">Status 2 </th>
    </tr>
    <tr>
      <td class="cell">1</td>
      <td class="cell">John</td>
      <td class="cell">Logged out</td>
      <td class="cell">Logged out</td>
    </tr>
  </tbody>
</table>
```





7 / 12 Completed

01 : 09 : 25

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End test



1

2

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```
<table class="tab">
  <tbody>
    <tr>
      <th class="cell">Sl No.</th>
      <th class="cell">Username</th>
      <th class="cell">Status 1 </th>
      <th class="cell">Status 2 </th>
    </tr>
    <tr>
      <td class="cell">1</td>
      <td class="cell">John</td>
      <td class="cell">Logged out</td>
      <td class="cell">Logged out</td>
    </tr>
    <tr>
      <td class="cell">2</td>
      <td class="cell">Ben</td>
      <td class="cell" rowspan="2">Logged in</td>
      <td class="cell" rowspan="2">Logged in</td>
    </tr>
    <tr>
      <td class="cell">3</td>
      <td class="cell">Anita</td>
      <td class="cell" rowspan="2">Logged in</td>
    </tr>
    <tr>
      <td class="cell">4</td>
      <td class="cell">Mary</td>
```



7 / 12 Completed

01 : 08 : 59

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End test

```
<tr>
  <td class="cell">1</td>
  <td class="cell">John</td>
  <td class="cell">Logged out</td>
  <td class="cell">Logged out</td>
</tr>

<tr>
  <td class="cell">2</td>
  <td class="cell">Ben</td>
  <td class="cell" rowspan="2">Logged in</td>
  <td class="cell" rowspan="2">Logged in</td>
</tr>
<tr>
  <td class="cell">3</td>
  <td class="cell">Anita</td>
  <td class="cell" rowspan="2">Logged in</td>
</tr>
<tr>
  <td class="cell">4</td>
  <td class="cell">Mary</td>
  <td class="cell">Logged out</td>
</tr>
<tr>
  <td class="cell">5</td>
  <td class="cell">Mark</td>
  <td class="cell">Logged in</td>
  <td class="cell">Logged in</td>
```



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01 : 08 : 53

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End test



1

2

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4

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7

8

9

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11

12

```
<td class="cell">2</td>
<td class="cell">Ben</td>
<td class="cell" rowspan="2">Logged in</td>
<td class="cell" rowspan="2">Logged in</td>
</tr>
<tr>
<td class="cell">3</td>
<td class="cell">Anita</td>
<td class="cell" rowspan="2">Logged in</td>

</tr>
<tr>
<td class="cell">4</td>
<td class="cell">Mary</td>
<td class="cell">Logged out</td>

</tr>
<tr>
<td class="cell">5</td>
<td class="cell">Mark</td>
<td class="cell">Logged in</td>
<td class="cell">Logged in</td>
</tr>

</tbody>
</table>
```

Options

1



8 / 12 Completed

01 : 06 : 45

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End test

&lt;/table&gt;

Options

1

Sl No.	Username	Status 1	Status 2
1	John	Logged out	Logged in
2	Ben	Logged in	
3	Anita		Logged out
4	Mary	Logged in	
5	Mark	Logged in	Logged in

2

Sl No.	Username	Status 1	Status 2	Status 3
1	John	Logged out	Logged out	Logged in
2	Ben	Logged in	Logged in	
3	Anita			
4	Mary	Logged out		
5	Mark	Logged in	Logged in	

3

Sl No.	Username	Status 1	Status 2	
1	John	Logged out	Logged out	Logged in
2	Ben	Logged in	Logged in	
3	Anita			
4	Mary	Logged out		
5	Mark	Logged in	Logged in	

4



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End test



3

Sl No.	Username	Status 1	Status 2	
1	John	Logged out	Logged out	
2	Ben			
3	Anita	Logged in	Logged in	
4	Mary	Logged out		Logged in
5	Mark	Logged in	Logged in	

4

Sl No.	Username	Status
1	John	
4	Mary	Logged out
2	Ben	
3	Anita	Logged in
5	Mark	

☐ 1

☐ 2

☒ 3

☐ 4

[Reset Answer](#)



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End test



Question 9

Max. score: 2.00

In C++, which of the following are the types of polymorphism?

☐ Run-time polymorphism

☐ Compile time polymorphism

☐ Both of these

☐ None of these

[Reset Answer](#)

[Previous Question](#)

[Next Question](#)

1

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3

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9 / 12 Completed

01 : 06 : 29

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End test



### Question 9

Max. score: 2.00

In C++, which of the following are the types of polymorphism?

☐ Run-time polymorphism

☐ Compile time polymorphism

☒ Both of these

✓ Your answer has been saved.

☐ None of these

[Reset Answer](#)

[< Previous Question](#)

[Next Question >](#)

1

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9 / 12 Completed

01 : 06 : 25

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End test



## Question 10

Max. score: 6.00

In Data structures, what is the best case and worst case complexity analysis for the following pseudocode in the insertion sort algorithm:

```
final Node<E> sorted = null;
.....
Node<E> current = first;
while (current != NULL)
{
    Node<E> next = current.next;
    Unlink(current);
    sortedInsert(current.data);
    current = next;
    .....
    .....
}
```

☐  $O(\log n), O(n)$ ☐  $O(n^2), O(n^2)$ ☐  $O(n), O(n^2)$ ☐ None of these





9 / 12 Completed

01 : 05 : 55

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End test



## Question 10

Max. score: 6.00

In Data structures, what is the best case and worst case complexity analysis for the following pseudocode in the insertion sort algorithm:

```
final Node<E> sorted = null;
.....
Node<E> current = first;
while (current != NULL)
{
    Node<E> next = current.next;
    Unlink(current);
    sortedInsert(current.data);
    current = next;
    .....
    .....
}
```

☐  $O(\log n), O(n)$ ☐  $O(n^2), O(n^2)$ ☐  $O(n), O(n^2)$ ☐ None of these



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01 : 05 : 52

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End test



```
Node<E> current = first;
while (current != NULL)
{
    Node<E> next = current.next;
    Unlink(current);
    sortedInsert(current.data);
    current = next;
    .....
    .....
}
```

☐  $O(\log n), O(n)$ ☐  $O(n^2), O(n^2)$ ☐  $O(n), O(n^2)$ ☐ None of these

Reset Answer

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End test



## Question 12

Max. score: 20.00

### Maximum balls

Bob is a maths teacher of a class of  $N$  students. The examination results were out and marks obtained by the students are represented by array *marks*. Bob is happy with the performance of the class so he decided to gift every student in his class an equal number of balls. As Bob likes mathematics a lot, he decided to pick a number which is a factor of *marks* of all  $N$  students in his class and decided to gift that number of balls to every student.

As Bob wants to distribute the maximum number of balls, he can change the marks of at most 1 student in his class to any positive number of his choice, so that he can gift the maximum number of balls to the students.

### Task

Determine the maximum number of balls Bob can give to every student after changing the marks of at most 1 student to any positive number of his choice.

### Example

#### Assumptions

- $N = 3$
- marks* = [12, 3, 11]

#### Approach

- The maximum possible number of balls each student can have is

### New Submission

All Submissions

Auto-complete connection failed. [Reconnect](#)

Save

Python 3 (python 3.9.5)



```
1 def max_balls (N, marks):
2     # write your code here
3
4
5 N = int(input())
6 marks = list(map(int, input().split()))
7
8 out_ = max_balls(N, marks)
9 print (out_)
```

3:5 vscode



Test against custom input

Custom input populated

Compile & Test code

Submit code

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01 : 04 : 22

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End test



As Bob wants to distribute the maximum number of balls, he can change the marks of at most 1 student in his class to any positive number of his choice, so that he can gift the maximum number of balls to the students.

#### Task

Determine the maximum number of balls Bob can give to every student after changing the marks of at most 1 student to any positive number of his choice.

#### Example

##### Assumptions

- $N = 3$
- $marks = [12, 3, 11]$

##### Approach

- The maximum possible number of balls each student can have is 3.
- Here to distribute the maximum number of balls to every student, Bob can change the marks of the 3<sup>rd</sup> student to 39.
- So the answer to this sample example becomes 3.

#### Function description

Complete the `max_balls` function provided in the editor. This function takes the following 2 parameters and returns an integer that represents the answer to the task as described in the problem statement:

- $N$ : Represents the number of students in the class

#### New Submission

All Submissions

Auto-complete connection failed. [Reconnect](#)

Save

Python 3 (python 3.9.5)



```
1 def max_balls (N, marks):
2     # write your code here
3
4
5 N = int(input())
6 marks = list(map(int, input().split()))
7
8 out_ = max_balls(N, marks)
9 print (out_)
```

3:5 vscode



Test against custom input

Custom input populated

Compile &amp; Test code

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&lt; Previous Question

Next Question &gt;



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01 : 04 : 01

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End test



### Example

#### Assumptions

- $N = 3$
- $marks = [12, 3, 11]$

#### Approach

- The maximum possible number of balls each student can have is 3.
- Here to distribute the maximum number of balls to every student, Bob can change the marks of the 3<sup>rd</sup> student to 39.
- So the answer to this sample example becomes 3.

#### Function description

Complete the `max_balls` function provided in the editor. This function takes the following 2 parameters and returns an integer that represents the answer to the task as described in the problem statement:

- $N$ : Represents the number of students in the class
- $marks$ : Represents the marks of  $N$  students

#### Input format

**Note:** This is the input format that you must use to provide custom input (available above the **Compile and Test** button).

- The first line contains the function parameter  $N$ .
- The second line contains  $N$  space-separated integers denoting the input values of the function parameter  $marks$ .

#### New Submission

All Submissions

Auto-complete connection failed. [Reconnect](#)

Save

Python 3 (python 3.9.5)



```
1 def max_balls (N, marks):
2     # write your code here
3
4
5 N = int(input())
6 marks = list(map(int, input().split()))
7
8 out_ = max_balls(N, marks)
9 print (out_)
```

3:5 vscode



Test against custom input

Custom input populated

Compile & Test code

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End test



### Input format

**Note:** This is the input format that you must use to provide custom input (available above the **Compile and Test** button).

- The first line contains the function parameter  $N$ .
- The second line contains  $N$  space-separated integers denoting the input values of the function parameter  $marks$ .

### Output format

Print an integer representing the maximum number for the given task.

### Constraints

$$2 \leq N \leq 10^5$$

$$1 \leq marks_i \leq 10^9$$

### Code snippets (also called starter code/boilerplate code)

This question has code snippets for C, CPP, Java, and Python.

### Sample input

```
3
12 3 11
```

### Sample output

```
3
```

### New Submission

All Submissions

Auto-complete connection failed. [Reconnect](#)

Save

Python 3 (python 3.9.5)



```
1 def max_balls (N, marks):
2     # write your code here
3
4
5 N = int(input())
6 marks = list(map(int, input().split()))
7
8 out_ = max_balls(N, marks)
9 print (out_)
```

3:5 vscode



Test against custom input

Custom input populated

Compile & Test code

Submit code

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01 : 03 : 44

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End test



### Explanation

For the given sample input

Given

- $N = 3$
- $marks = [12, 3, 11]$

Approach

- The maximum possible number of balls each student can have is 3.
- Here to distribute the maximum number of balls to every student, Bob can change the marks of the 3<sup>rd</sup> student to 39.
- So the answer to this given input becomes 3.

① The following test cases are the actual test cases of this question that may be used to evaluate your submission.

### Note:

Your code must be able to print the sample output from the provided sample input. However, your code is run against multiple hidden test cases. Therefore, your code must pass these hidden test cases to solve the problem statement.

### Limits

Time Limit: 10 sec(s) for each input file

Memory Limit: 256 MB

Source Limit: 1024 KB

### Scoring

Score is assigned if any testcase passes

### Allowed Languages

Bash, C, C++, C++14, C++17, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, Java 14, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Python 3.8, Racket, Ruby, Rust, Scala, Swift-4.1, Swift, TypeScript, Visual Basic

### New Submission

All Submissions

① Auto-complete connection failed. [Reconnect](#)

Save

Python 3 (python 3.9.5)



```
1 def max_balls (N, marks):
2     # write your code here
3
4
5 N = int(input())
6 marks = list(map(int, input().split()))
7
8 out_ = max_balls(N, marks)
9 print (out_)
```

3:5 vscode



Test against custom input

② Custom input populated

Compile & Test code

Submit code

< Previous Question

Next Question >



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01 : 00 : 27

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End test

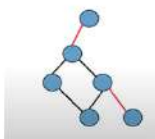
### Question 11

Max. score: 50.00

#### Special edge

You are given a connected undirected graph having  $N$  nodes numbered from 1 to  $N$  and  $M$  edges between its nodes. It is guaranteed that the input graph is connected and consists of no self-loops and no multiple edges between two vertices. Edges are given in a 2D array/vector  $Edg$ .

An edge is *special* if it is removed then the number of connected components in the graph increases.



Edges marked red are special in the above figure.

#### Task

Determine the number of unordered pairs of nodes  $(u, v)$  such that each and every Simple path (path with no edges repeated) between node  $u$  and node  $v$  consists of *exactly 1* special edge.

#### Notes:

- Assume 1-based indexing.
- A *connected undirected graph* is a network of nodes connected by bidirectional edges such that we can move between any two

New Submission

All Submissions

Auto-complete connection failed. [Reconnect](#)

Save

Python 3 (python 3.9.5)

```
1 def special_sol (N, M, Edg):
2     """
3     N - number of vertices in the graph
4     M - number of edges
5     There is an
6     edge between Edg[i][0] and Edg[i][1]
7     """
8
9     pass
10
11 T = int(input())
12 for _ in range(T):
13     N = int(input())
14     M = int(input())
15     Edg = [list(map(int, input().split())) for i in range(M)]
16
17     out_ = special_sol(N, M, Edg)
18     print (out_)
```

7:6 vscode



Test against custom input

Custom input populated

Compile & Test code

Submit code

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10 / 12 Completed

01 : 00 : 00

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End test

**Task**

Determine the number of unordered pairs of nodes  $(u, v)$  such that each and every Simple path (path with no edges repeated) between node  $u$  and node  $v$  consists of *exactly 1* special edge.

**Notes:**

- Assume 1-based indexing.
- A *connected undirected graph* is a network of nodes connected by bidirectional edges such that we can move between any two nodes using some bidirectional edges.
- A simple path between 2 vertices contains distinct vertices only.
- Unordered pair means that  $(a, b)$  and  $(b, a)$  are considered to be the same.

**Example****Assumptions**

- $N = 4$
- $M = 4$
- $Edg = \{ [1, 2], [2, 3], [3, 4], [2, 4] \}$

**Approach**

- The paths between the nodes  $(1, 2)$ ,  $(1, 3)$ ,  $(1, 4)$  consist of exactly one Special edge which is the edge  $[1, 2]$ .
- Hence, the answer is 3.

**Function description**

Complete the function `special_sol` provided in the editor. This function takes the following 3 parameters and returns the required answer:

**New Submission**

All Submissions

Auto-complete connection failed. [Reconnect](#)

Save

Python 3 (python 3.9.5)



```
1 def special_sol (N, M, Edg):
2     """
3     N - number of vertices in the graph
4     M - number of edges
5     There is an
6     edge between Edg[i][0] and Edg[i][1]
7     """
8
9     pass
10
11 T = int(input())
12 for _ in range(T):
13     N = int(input())
14     M = int(input())
15     Edg = [list(map(int, input().split())) for i in range(M)]
16
17     out_ = special_sol(N, M, Edg)
18     print (out_)
```

7:6 vscode



Test against custom input ▼

Custom input populated

Compile &amp; Test code

Submit code

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Next Question &gt;



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00:59:22

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End test

### Example

#### Assumptions

- $N = 4$
- $M = 4$
- $Edg = \{ [1,2], [2,3], [3,4], [2,4] \}$

#### Approach

- The paths between the nodes  $(1, 2)$ ,  $(1, 3)$ ,  $(1, 4)$  consist of exactly one Special edge which is the edge  $[1, 2]$ .
- Hence, the answer is 3.

#### Function description

Complete the function `special_sol` provided in the editor. This function takes the following 3 parameters and returns the required answer:

- $N$ : Represents the number of nodes in the graph
- $M$ : Represents the number of edges in the graph
- $Edg$ : Represents a list of edges between two nodes in the graph

#### Input format

- The first line contains  $T$  denoting the number of test cases.  $T$  also specifies the number of times you have to run the `special_sol` function on a different set of inputs.
- For each test case:
  - The first line contains a single integer  $N$  denoting the number of nodes in the graph
  - The second line contains a single integer  $M$  denoting the

#### New Submission

All Submissions

Auto-complete ready!

Save

Python 3 (python 3.9.5)

```
1 def special_sol (N, M, Edg):
2     """
3     N - number of vertices in the graph
4     M - number of edges
5     There is an
6     edge between Edg[i][0] and Edg[i][1]
7     """
8
9     pass
10
11 T = int(input())
12 for _ in range(T):
13     N = int(input())
14     M = int(input())
15     Edg = [list(map(int, input().split())) for i in range(M)]
16
17     out_ = special_sol(N, M, Edg)
18     print (out_)
```

7:6 vscode



Test against custom input

Custom input populated

Compile & Test code

Submit code

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00:58:16

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End test



### Input format

- The first line contains  $T$  denoting the number of test cases.  $T$  also specifies the number of times you have to run the `special_sol` function on a different set of inputs.
- For each test case:
  - The first line contains a single integer  $N$  denoting the number of nodes in the graph
  - The second line contains a single integer  $M$  denoting the number of edges in the graph
  - Next  $M$  lines contain integers  $u_i$  and  $v_i$  denoting that there is an edge between vertex  $u_i$  and vertex  $v_i$

### Output format

For each test case in a new line, print an integer denoting the number of unordered pairs  $(u, v)$  such that each and every simple path between  $u$  and  $v$  consists of exactly 1 special edge.

### Constraints

$$1 \leq T \leq 10$$

$$1 \leq N, M \leq 2 \times 10^5$$

$$1 \leq u_i, v_i \leq N$$

$$u_i \neq v_i$$

### Code snippets (also called starter code/boilerplate code)

This question has code snippets for C, CPP, Java, and Python.

Sample input



Sample output



New Submission

All Submissions

Auto-complete ready!

Save

Python 3 (python 3.9.5)



```
1 def special_sol (N, M, Edg):
2     """
3     N - number of vertices in the graph
4     M - number of edges
5     There is an
6     edge between Edg[i][0] and Edg[i][1]
7     """
8
9     pass
10
11 T = int(input())
12 for _ in range(T):
13     N = int(input())
14     M = int(input())
15     Edg = [list(map(int, input().split())) for i in range(M)]
16
17     out_ = special_sol(N, M, Edg)
18     print (out_)
```

7:6 vscode



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00:58:08

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End test



### Explanation

The first line contains the number of test cases,  $T = 1$ .

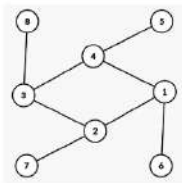
#### The first test case

Given

- $N = 8$
- $M = 8$
- $Edg = [[1, 6], [2, 7], [3, 8], [4, 5], [1, 2], [2, 3], [3, 4], [4, 1]]$

Approach

- The graph is as follows:



- The Edges  $[1, 6], [2, 7], [3, 8], [4, 5]$  are Special
- The following are ordered pairs of nodes having exactly one special edge between each and every simple path between them:  $(6, 1), (6, 2), (6, 3), (6, 4), (7, 1), (7, 2), (7, 3), (7, 4), (8, 1), (8, 2), (8, 3), (8, 4), (5, 1), (5, 2), (5, 3), (5, 4)$

Hence, the answer is 16.

- The following test cases are the actual test cases of this question that may be used to evaluate your submission.

#### Note:

Your code must be able to print the sample output from the provided sample input. However, your code is run against multiple hidden test cases. Therefore,

### New Submission

All Submissions

Auto-complete ready!

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Python 3 (python 3.9.5)

```
1 def special_sol (N, M, Edg):
2     """
3     N - number of vertices in the graph
4     M - number of edges
5     There is an
6     edge between Edg[i][0] and Edg[i][1]
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11 T = int(input())
12 for _ in range(T):
13     N = int(input())
14     M = int(input())
15     Edg = [list(map(int, input().split())) for i in range(M)]
16
17     out_ = special_sol(N, M, Edg)
18     print (out_)
```

7:6 vscode



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End test

## Code snippets (also called starter code/boilerplate code)

This question has code snippets for C, CPP, Java, and Python.

## Sample input

```
1
8
8
1 6
2 7
3 8
4 5
1 2
2 3
3 4
```

## Sample output

16

[View more](#)

## Explanation

The first line contains the number of test cases,  $T = 1$ .

## The first test case

Given

- $N = 8$
- $M = 8$
- $Edg = [[1, 6], [2, 7], [3, 8], [4, 5], [1, 2], [2, 3], [3, 4], [4, 1]]$

Approach

- The graph is as follows:



## New Submission

All Submissions

Auto-complete ready!

Save

Python 3 (python 3.9.5)



```
1 def special_sol (N, M, Edg):
2     """
3     N - number of vertices in the graph
4     M - number of edges
5     There is an
6     edge between Edg[i][0] and Edg[i][1]
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16
17     out_ = special_sol(N, M, Edg)
18     print (out_)
```

7:6 vscode



Test against custom input

Custom input populated

Compile &amp; Test code

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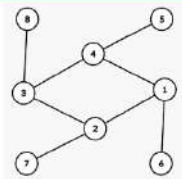
10 / 12 Completed

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End test



- The Edges  $[1, 6], [2, 7], [3, 8], [4, 5]$  are Special.
- The following are ordered pairs of nodes having exactly one special edge between each and every simple path between them:  $(6, 1), (6, 2), (6, 3), (6, 4), (7, 1), (7, 2), (7, 3), (7, 4), (8, 1), (8, 2), (8, 3), (8, 4), (5, 1), (5, 2), (5, 3), (5, 4)$ .

Hence, the answer is 16.

- ① The following test cases are the actual test cases of this question that may be used to evaluate your submission.

#### Note:

Your code must be able to print the sample output from the provided sample input. However, your code is run against multiple hidden test cases. Therefore, your code must pass these hidden test cases to solve the problem statement.

#### Limits

Time Limit: 2.0 sec(s) for each input file  
Memory Limit: 256 MB  
Source Limit: 1024 KB

#### Scoring

Score is assigned if any testcase passes.

#### Allowed Languages

Bash, C, C++, C++14, C++17, Clojure, C#, D, Erlang, F#, Go, Groovy, Haskell, Java, Java 8, Java 14, JavaScript(Rhino), JavaScript(Node.js), Julia, Kotlin, Lisp, Lisp (SBCL), Lua, Objective-C, OCaml, Octave, Pascal, Perl, PHP, Python, Python 3, Python 3.8, Racket, Ruby, Rust, Scala, Swift-4.1, Swift, TypeScript, Visual Basic

New Submission

All Submissions

Auto-complete ready!

Save

Python 3 (python 3.9.5)

```
1 def special_sol (N, M, Edg):
2     """
3     N - number of vertices in the graph
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```

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Test against custom input

Custom input populated

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