

```
...
```

```
Time complexity:  $O(N^3)$   
Space complexity:  $O(N^2)$ 
```

where N is the number of vertices in the input graph and
 M is the number of edges in the input graph

```
...
```

```
from sys import stdin
```

```
def getCycles(graph, n):
```

```
    cycleCount = 0
```

```
    for i in range(n-2):
```

```
        for j in range(i+1,n-1):
```

```
            for k in range(j+1,n):
```

```
                if (graph[i][j] and graph[j][k] and graph[k][i]):
```

```
                    cycleCount+=1
```

```
    return cycleCount
```

```
n,m = list(map(int,stdin.readline().strip().split( )))
```

```
graph=[[ None for i in range(n) ] for j in range(n) ]
```

```
for i in range(m):
```

```
    u,v = list(map(int,stdin.readline().strip().split( )))
```

```
    graph[u][v] = True
```

```
    graph[v][u] = True
```

```
print(getCycles(graph, n))
```

```
...
```

An optimised solution can also be written
whose complexity may be as follows:

```
Time complexity:  $O(N^2)$ 
```

```
Space complexity:  $O(N + M)$ 
```

where N is the number of vertex in the graph

and M is the number of edges in the graph

```
...
```