**Data Structures**

**4. Hash Tables**

1. **Cells in a matrix**

**#include <iostream>**

**#include <bits/stdc++.h>**

**#define ll long long**

**using namespace std;**

**int main() {**

**int n,k;**

**cin >> n >> k;**

**set<int> row,col;**

**while(k--){**

**int i,j;**

**cin >> i >> j;**

**row.insert(i);**

**col.insert(j);**

**ll ans = (n - row.size()) \* (n - col.size());**

**cout << ans << ' ';**

**}**

**return 0;**

**}**