```cpp
#include <bits/stdc++.h>
#define ll long long
#define inf (int)1e9
using namespace std;
```

2D-Prefix sum:

```cpp
vector<vector<int>> prefix2d(1100 , vector<int>(1100 , 0)),
                    a(1100 , vector<int> (1100 , 0));

//a & prefix arrays start from 1 to n and from 1 to m
void generate_prefix(int n , int m){
    for (int i = 1; i <= n; i++)
        for (int j = 1; j <= m; j++)
            prefix2d[i][j] = a[i][j] + prefix2d[i-1][j] +
                             prefix2d[i][j-1] - prefix2d[i-1][j-1];
}

//get prefix for square between two points (inclusive)
int get_prefix(int x1 , int y1 , int x2 , int y2){
    return (prefix2d[x2][y2] - prefix2d[x2][y1-1]
                - prefix2d[x1-1][y2] + prefix2d[x1-1][y1-1]);
}
```

2D-Prefix (Min / Max):

```cpp
vector<vector<int>> prefix2d(1100 , vector<int>(1100 , inf)),
                    a(1100 , vector<int> (1100 , 0));

//a & prefix arrays start from 1 to n and from 1 to m
//change the (min / max) and the value in prefix array
void generate_prefix(int n , int m){
    for (int i = 1; i <= n; i++)
        for (int j = 1; j <= m; j++)
            prefix2d[i][j] = min({a[i][j] , prefix2d[i-1][j] , prefix2d[i][j-1]});
}

//get prefix for square from point to (1 , 1) (inclusive)
int get_prefix(int x , int y){
    return prefix2d[x][y];
}
```

2D-Prefix GCD:

```cpp
vector<vector<int>> prefix2d(1100 , vector<int>(1100 , 0)),
                    a(1100 , vector<int> (1100 , 0));

//a & prefix arrays start from 1 to n and from 1 to m
void generate_prefix(int n , int m){
    for (int i = 1; i <= n; i++)
        for (int j = 1; j <= m; j++)
            prefix2d[i][j] = __gcd( a[i][j] ,
                                    __gcd(prefix2d[i-1][j], prefix2d[i][j-1]));
}

//get prefix for square from the point to (1 , 1) (inclusive)
int get_prefix(int x , int y){
    return prefix2d[x][y];
}
```