### **Contents**

## 1 Graph Theory

#### 1.1 DFS

```
1 vector < int > G[N];
2 bitset < N > vis;
3 void dfs(int s) {
4 vis[s] = 1;
5 for (int t : G[s]) {
6    if (!vis[i])
7    dfs(i);
8 }
9 }
```

#### 1.2 BFS

```
1 | vector<int> G[N];
2 bitset<N> vis;
3 void bfs(int s) {
    queue<int> q;
    q.push(s);
     vis[s] = 1;
     while (!q.empty()) {
      int v = q.front();
8
       q.pop();
9
      for (int t : G[v]) {
10
11
        if (!vis[t]) {
12
           q.push(t);
13
           vis[t] = 1;
14
15
       }
16
    }
17 }
```

# 2 Number Theory

#### 2.1 thm

- 中文測試
- $\sum_{i=1}^{n} i^2 = \frac{n(n+1)(2n+1)}{6}$