

```
1  #include<stdio.h>
2  #include<string.h>
3  #include<math.h>
4  #include<utility>
5  #include<vector>
6  #include<queue>
7  using namespace std;
8
9  #define MAX 512
10 #define INF 112345678
11
12 typedef struct{ int x, y; }ponto;
13 typedef pair<double, int> di;
14 typedef vector<di> vdi;
15
16 int n, seen[MAX];
17 double dist[MAX];
18
19 int disteu(ponto a, ponto b) {
20     int r1 = a.x - b.x, r2 = a.y - b.y;
21     return r1 * r1 + r2 * r2;
22 }
23
24 double prim(int s, vector<vdi> &LG) {
25     int u, i, v;
26     double ret = 0, c;
27     priority_queue< di, vector<di>, greater<di> > Q;
28     memset(seen, 0, sizeof(seen));
29     for (u = 0; u < n; u++) dist[u] = INF;
30     dist[s] = 0; Q.push(di(0, s));
31     while (!Q.empty()) {
32         u = Q.top().second; Q.pop();
33         if (seen[u]) continue;
34         seen[u] = 1; ret += dist[u];
35         for (i = 0; i < (int)LG[u].size(); i++) {
36             c = LG[u][i].first; v = LG[u][i].second;
37             if (dist[v] > c) {
38                 dist[v] = c; Q.push(di(c, v));
39             }
40         }
41     }
42     return ret;
43 }
44
45 int main(void) {
46     int c, i, j;
47     ponto t[MAX];
48     scanf("%d", &c);
49     while (c--) {
50         scanf("%d", &n);
51         vector<vdi> LG(n);
52         for (i = 0; i < n; i++) scanf("%d %d", &t[i].x, &t[i].y);
53         for (i = 0; i < n; i++)
54             for (j = i+1; j < n; j++) {
55                 LG[i].push_back(di(sqrt(disteu(t[i], t[j])), j));
56                 LG[j].push_back(di(sqrt(disteu(t[i], t[j])), i));
57             }
58         printf("%.2lf\n", prim(0, LG) / 100);
59     }
60     return 0;
61 }
```