Prim算法求最小生成树，原图为密集图，存储在邻接矩阵dis中

输出为vector数组形式，存储在G中

cost\_MST为最小生成树代价

需要全局数组visit pre

void prim(void)

{

memset(visit,0,sizeof(visit));

visit[1] = true;

for(int i = 1; i <= n;i++)

{

pre[i] = 1;

b[i] = dis[1][i];

}

pre[1] = -1;

int min\_id;

double minn = 1000000;

for(int ii = 1; ii < n; ii++)

{

minn = 100000000;

for(int i = 1; i <= n;i++)

if(!visit[i] && b[i] < minn)

{

minn = b[i];

min\_id = i;

}

visit[min\_id] = true;

cost\_MST += minn;

for(int j = 1; j <= n;j++)

if(!visit[j] && dis[min\_id][j] < b[j])

{

b[j] = dis[min\_id][j];

pre[j] = min\_id;

}

}

for(int i = 2; i <= n; i++)

{

int to = pre[i];

G[to].push\_back(i);

G[i].push\_back(to);

}

}