

POJ 3034

```
#include<iostream>
#include<cstdio>
#include<cstring>
#include<cmath>
#include<cstdlib>
using namespace std;
int read()
{
    int x=0,f=1;char c=getchar();
    while(c<'0' || c>'9'){if(c=='-')f=-1;c=getchar();}
    while(c>='0'&&c<='9'){x=x*10+c-'0';c=getchar();}
    return x*f;
}
int n,d,m,f[11][40][40];
bool mp[11][40][40];
int gcd(int a,int b){return b?gcd(b,a%b):a;}
int main()
{
    while(~scanf("%d%d%d",&n,&d,&m))
    {
        if(!n&&!d&&!m)break;
        int ans=0;
        memset(mp,0,sizeof(mp));
        memset(f,0,sizeof(f));
        int maxt=0;
        for(int i=1;i<=m;i++)
        {
            int x,y,t;
            x=read(),y=read(),t=read();
            mp[t][x+6][y+6]=1;
            maxt=max(maxt,t);
        }
        for(int i=1;i<=maxt;i++)
        {
            for(int x0=-6;x0<n+6;x0++)
            {
                for(int y0=-6;y0<n+6;y0++)
                {
                    for(int x1=-6;x1<n+6;x1++)
                    {
                        for(int y1=-6;y1<n+6;y1++)
                        {
                            if((x1-x0)*(x1-x0)+(y1-y0)*(y1-y0)>d*d)continue;
                            int res=f[i-1][x0+6][y0+6];
                            if(x1==x0&&y1==y0)res+=mp[i][x0+6][y0+6];
                            else
                            {
                                int g=gcd(abs(x1-x0),abs(y1-y0));
                                int x=x0,y=y0;
```

```
int stx=(x1-x0)/g,sty=(y1-y0)/g;
while(x!=x1||y!=y1)
{
    if(mp[i][x+6][y+6])res++;
    x+=stx,y+=sty;
}
if(mp[i][x+6][y+6])res++;
}
f[i][x1+6][y1+6]=max(res,f[i][x1+6][y1+6]);
ans=max(ans,f[i][x1+6][y1+6]);
}
}
}
}
}
}
}
printf("%d\n",ans);
}
return 0;
}
```

From:
<https://wiki.cvbbacm.com/> - CVBB ACM Team

Permanent link:
https://wiki.cvbbacm.com/doku.php?id=2020-2021:teams:wangzai_milk:weekly:poj_3034



Last update: **2020/05/10 01:33**