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PROG: apples

LANG: C++

ID: hayk.sa1

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#include <cstdio>

#include <algorithm>

using namespace std;

#define Max(a, b) ((a)>(b)?(a):(b))

struct P

{

long long x, y, t;

} p[5010];

bool operator < (P a, P b)

{

return a.t < b.t;

}

int d[5010];

int main()

{

freopen("apples.in", "r", stdin);

freopen("apples.out", "w", stdout);

long long s;

int n, m, i, j;

scanf("%d%lld", &n, &s);

for (i = 0; i < n; i++)

scanf("%lld%lld%lld", &p[i].x, &p[i].y, &p[i].t);

m = 0;

sort(p, p+n);

for (i = 0; i < n; i++)

{

d[i] = (p[i].t\*p[i].t\*s\*s >= p[i].x\*p[i].x+p[i].y\*p[i].y);

for (j = 0; j < i; j++)

if (d[j] && (p[i].t-p[j].t)\*(p[i].t-p[j].t)\*s\*s >= (p[i].x-p[j].x)\*(p[i].x-p[j].x)+(p[i].y-p[j].y)\*(p[i].y-p[j].y))

d[i] = Max(d[i], d[j]+1);

m = Max(m, d[i]);

}

printf("%d\n", m);

return 0;

}