#include

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using namespace std;

#define inf 2000000000

#define eps (1e-9)

const double pi = 2\*acos(0.0);

struct P

{

long long x, y;

} t[100010], as[100010];

bool intersect(P s, int dir, P a, P b)

{

if (a.y < b.y)

swap(a, b);

if (a.y < s.y || b.y > s.y)

return 0;

P p;

p.y = s.y;

p.x = s.x+dir;

double a1 = acos((1.0+(a.x-s.x)\*(a.x-s.x)+(a.y-s.y)\*(a.y-s.y)-(a.x-p.x)\*(a.x-p.x)-(a.y-p.y)\*(a.y-p.y))/

(2\*sqrt((a.x-s.x)\*(a.x-s.x)+(a.y-s.y)\*(a.y-s.y)\*1.0)));

double a2 = acos((1.0+(b.x-s.x)\*(b.x-s.x)+(b.y-s.y)\*(b.y-s.y)-(b.x-p.x)\*(b.x-p.x)-(b.y-p.y)\*(b.y-p.y))/

(2\*sqrt((b.x-s.x)\*(b.x-s.x)+(b.y-s.y)\*(b.y-s.y)\*1.0)));

return a1+a2 <= pi+eps;

}

int main()

{

int n, m, i;

P a, b, c, d;

scanf("%d", &n);

a.y = -inf;

b.y = inf;

c.y = -inf;

d.y = inf;

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

{

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

if (a.y < t[i].y)

a = t[i];

if (b.y > t[i].y)

b = t[i];

}

t[n] = t[0];

scanf("%d", &m);

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

{

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

if (c.y < as[i].y)

c = as[i];

if (d.y > as[i].y)

d = as[i];

}

as[m] = as[0];

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

if (intersect(a, 1, as[i], as[i+1]) ||

intersect(b, 1, as[i], as[i+1]))

{

printf("YES\n");

return 0;

}

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

if (intersect(c, -1, t[i], t[i+1]) ||

intersect(d, -1, t[i], t[i+1]))

{

printf("YES\n");

return 0;

}

printf("NO\n");

return 0;

}