Pastebin link: http://paste.ubuntu.com/25807555/

#define SIZE 1005

typedef long long ll;

struct point{

ll x, y;

}para[SIZE];

int n;

ll areaOfPolygon2(){ //2\*Area of simple polygon para[], which has n points

para[n]=para[0];

ll area=0;

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

area+=(para[i].x)\*(para[i+1].y);

area-=(para[i+1].x)\*(para[i].y);

}

if(area<0LL) area\*=-1; //If points are in clockwise order

return area;

}

ll numberOfLatticePoints(point a, point b){ //Number of lattice points in line segment connecting a, b

ll xd=a.x>b.x ? a.x-b.x : b.x-a.x;

ll yd=a.y>b.y ? a.y-b.y : b.y-a.y;

return \_\_gcd(xd, yd); //All lattice points except one vertex

}

ll latticePointsInsidePoly(){ //Number of lattice points strictly inside polygon

ll area=areaOfPolygon2();

ll b=0;

for(int i=0; i<n; i++) b+=numberOfLatticePoints(para[i], para[i+1]);

return (area-b)/2+1;

}