

```

#include<iostream>
#include<math.h>
using namespace std;
int main () {
float x1,x2,x3,y1,y2,y3;
float a,b,c;
float S,P, p;

cout<<"(x1;y1) : ";
cin>>x1>>y1;
cout<<"(x2;y2) : ";
cin>>x2>>y2;
cout<<"(x3;y3) : ";
cin>>x3>>y3;

a=sqrt(pow(y2-y1,2)+pow(x2-x1,2));
b=sqrt(pow(y3-y1,2)+pow(x3-x1,2));
c=sqrt(pow(y3-y2,2)+pow(x3-x2,2));

//cout<<a<<" "<<b<<" "<<c;
if ((a+b>c)&&(b+c>a)&&(a+c>b)) {
    P=a+b+c;
    cout<<"P="<<P<<endl;
    p=P/2;
    S=sqrt(p*(p-a)*(p-b)*(p-c));
    cout<<"S="<<S;
}
else cout<<"These three points doesn't form a triangle";
}

```