#include <iostream>  
#include <string>  
#include <cmath>  
using namespace std;  
  
class MyPoint2D  
{  
 private:  
 int x;  
 int y;  
 public:  
   
 void setPointAB(int,int,int,int);  
 double distanceBtwn();  
  
};  
  
  
  
int main()  
{  
 MyPoint2D obj;  
 MyPoint2D obj2;  
 int Ax,Ay;  
 int Bx,By;  
 int Cx,Cy;  
 int Dx,Dy;  
  
  
 cout<<"For the first point A, enter its x and y co-ordinate"<<endl;  
 cin>>Ax>>Ay;  
 cout<<"For the second point B, enter its x and y co-ordinates"<<endl;  
 cin>>Bx>>By;  
 cout<<"For the second point C, enter its x and y co-ordinates"<<endl;  
 cin>>Cx>>Cy;  
 cout<<"For the second point D, enter its x and y co-ordinates"<<endl;  
 cin>>Dx>>Dy;  
 double side1,side2;  
obj2.setPointAB(Cx,Cy,Dx,Dy);  
 obj.setPointAB(Ax,Ay,Bx,By);  
 side1 = obj.distanceBtwn();  
 side2 = obj2.distanceBtwn();  
 cout<<"The distance between point A and B is equal to"<<endl<< obj.distanceBtwn()<<endl;  
 cout<<"The distance between point C and D is equal to"<<endl<<side2<<endl;  
if (side1 == side2)  
{  
 cout<<"The polygon ABCD is a square"<<endl;  
}else  
{  
cout<<"The polygon ABCD is not a square"<<endl;  
}  
  
 return 0;  
}  
  
void MyPoint2D:: setPointAB(int Ax,int Ay, int Bx, int By)  
{  
   
 y = Ay - By;  
 x = Ax - Bx;  
   
  
}  
double MyPoint2D:: distanceBtwn()  
{  
 int a,b;  
 a = x\*x;  
 b = y\*y;  
 int result;  
 return sqrt(a + b);  
   
}