#include<stdio.h>

#include<math.h>

float f(float x, float y)

{ return (2\*x + y); }

int main()

{

int i;

float x0,y0,xn,n,yn,k1,k2,k3,k4,k,h;

printf("Enter the value of x0:");

scanf("%f",&x0);

printf("Enter the value of y0:");

scanf("%f",&y0);

printf("Enter the value of xn");

scanf("%f",&xn);

printf("Enter the incremental value");

scanf("%f",&h);

n=(xn-x0)/h;

xn=x0;

yn=y0;

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

{

k1=h\*f(xn,yn);

k2=h\*f((xn+h/2),(yn+k1/2));

k3=h\*f((xn+h/2),(yn+k2/2));

k4=h\*f((xn+h),(yn+k3));

k=(k1+2\*k2+2\*k3+k4)/6;

xn=xn+h;

yn=yn+k;

}

printf("%f", yn);

}

//output

//Enter the value of x0:1

//Enter the value of y0:2

//Enter the value of xn1.2

//Enter the incremental value0.1

//3.499151