//第九周作业//

#include <stdio.h>

#include <math.h>

int main()

{

float a,b,c,d,disc,x1,x2,realpart,imagepart;

scanf("%f%f%f",&a,&b,&c);

printf("The Equation ");

if(fabs(a)<1e-6)

{

if(b!=0 && c!=0)

printf("has one real root: %f\n",-c/b);

if(b!=0 && c==0)

printf("has one real root: %d\n",(int)c );

if(b=0)

printf("do not has a real root");

}

else

{

disc = b\*b-4\*a\*c;

if(fabs(disc)<1e-6)

printf("has two equal roots:%8.4f\n",-b/(2\*a));

else if(disc>0)

{

x1=(-b+sqrt(disc))/(2\*a);x2=(-b-sqrt(disc))/(2\*a);

printf("has two distinct real roots:%8.4f and %8.4f\n", x1,x2);

}

else

{

realpart=-b/(2\*a);imagepart=sqrt(-disc)/(2\*a);

printf("has complex roots:\n");

printf("%8.4f + %8.4fi\n",realpart,imagepart);

printf("%8.4f - %8.4fi\n",realpart,imagepart);

}

}

return 0;

}