#include<stdio.h>

#include<math.h>

int loop(int n,int m);

int main(){

    int n1,n2;

    printf("enter the age given by the 1st inmate:");

    scanf("%d",&n1);

    printf("enter the age given by the 2nd inmate:");

    scanf("%d",&n2);

    loop(n1,n2);

    float a,b,c,r1,r2,d;

    printf("enter the coffcients of a,b,c respectively form above quadratic equation: ");

    scanf("%f %f %f",&a,&b,&c);

    d=b\*b-4\*a\*c;

    r1 = sqrt (d);

    if (d>0){

      r1 = (-b+sqrt (d)) / (2\*a);

      printf("\n\*\*\*\*\n");

      printf("the age of 1st inmate is: = %f\n", r1);

      printf("the age of 2nd inmate is : = %f\n",1280/r1);

    }

    else if (d==0){

      r1 = -b/(2\*a);

      r2 = -b/(2\*a);

      printf ("age are equal =%f %f", r1, r2);

    }

    else

      printf("age  are imaginary");

  return 0;

}

int loop(int n,int m){

    int x,y;

    printf("\n\*\*\*\*\n");

    printf("let the age of 1st inmate is x\n");

    printf("and let the age of 2nd inmate is y\n");

    printf("\n\*\*\*\*\n");

    x=n;

    y=m;

    printf("first inmate has subtracted age so the equation is x-y=%d\n",x);

    printf("second inmate has multiply the ages so the equation is xy=%d\n",y);

    printf("\n\*\*\*\*\n");

    printf("after simplify the quadratic equation is : x\*x - %dx - %d = 0 \n",x,y);

}