The Sky is Sprite.   
The Birds is Fly in the Sky.   
The Wind is Wonderful.   
Blew Throw the Trees   
Trees are Shaking, Leaves are Falling.   
Lovers Walk passing, and so are You.   
................................Write in English class by yifenfei   
  
  
  
Girls are clever and bright. In HDU every girl like math. Every girl like to solve math problem!   
Now tell you two nonnegative integer a and b. Find the nonnegative integer X and integer Y to satisfy X\*a + Y\*b = 1. If no such answer print "sorry" instead.

Input

The input contains multiple test cases.   
Each case two nonnegative integer a,b (0<a, b<=2^31)

Output

output nonnegative integer X and integer Y, if there are more answers than the X smaller one will be choosed. If no answer put "sorry" instead.

Sample Input

77 51

10 44

34 79

Sample Output

2 -3

sorry

7 -3

**题目大意：给两个数a和b，找出一组x，y使得a\*x + b\*y = 1，如果找不出输出sorry**

**题解：显然是用扩展欧几里得定理求解。**

**又扩展欧几里得定理有，如果a\*x+b\*y = d   要使得方程有解必有gcd(a,b)为d的约数。**

**而此题的d = 1  所以若gcd(a,b)!=1，则应该输出sorry**

**注意，输出的x应为最小的非负整数，这就需要用到x，y所有解的公式：**

**x，y所有解：  
假设d=gcd(a,b). 那么x=x0+b/d\*t; y=y0-a/d\*t;其中t为任意常整数**

#include<stdio.h>

#include<string.h>

int exgcd(int a,int b,int &x,int &y)

{

if(b==0)

{

x=1;y=0;

return a;

}

else

{

int r=exgcd(b,a%b,y,x);

y-=x\*(a/b);

return r;

}

}

int main()

{

int a,b,x,y,gcd;

while(~scanf("%d%d",&a,&b))

{

gcd=exgcd(a,b,x,y);

if(gcd!=1)

{

puts("sorry");

continue;

}

while(x<=0)

{

x=x+b;

y=y-a;

}

printf("%d %d\n",x,y);

}

return 0;

}