**int gcd(int a, int b, int& x, int& y) {**

**if (b == 0) {**

**x = 1;**

**y = 0;**

**return a;**

**}**

**int x1, y1;**

**int d = gcd(b, a % b, x1, y1);**

**x = y1;**

**y = x1 - y1 \* (a / b);**

**return d;**

**}**