// thuat toan tim cac SNT cung nhau

// so nguyen to cung nhau co 2 uoc chung lon nhat la 1

// Luu y: so nguyen to cung nhau co the la hop so ( so lon hon 1 va khon la SNT )

#include <iostream>

#include <iomanip>

using namespace std;

const int maxsize = 100;

// Buoc 1: Tim uoc chung lon nhat: ( co 2 cach )

// Dung thuat toan EUCLID

// Cach 1: Khong dung de quy

int UCLN ( int a, int b )

{

int r;

while ( b > 0 )

{

r = a % b;

a = b;

b = r;

}

return a;

}

// Cach 2: Dung de quy

int ucln ( int a, int b )

{

if ( b == 0 )

return a;

return ucln ( b, a % b );

}

// Buoc 2: Viet ct tim cac so nguyen to cung nhau

void SNTCN ( int a[], int n )

{

for ( int i = 0; i < n - 1; i++)

{

for ( int j = i + 1; j < n; j++)

{

if ( UCLN( a[i], a[j] ) == 1 )

cout <<setw(2) << right << "(" << a[i] << "," << a[j] << ")" << endl;

}

}

}

int main ()

{

// vd mang nhu sau

int a[6] = {6,10,12,17,21,25};

int n = sizeof (a) / sizeof (a[0]);

cout <<" Cac cap so nguyen to cung nhau la: " << endl;

SNTCN ( a, n ) ;

system ( "pause");

}