int SOD( int n ) {

int res = 1;

int sqrtn = sqrt ( n );

for ( int i = 0; i < prime.size() && prime[i] <= sqrtn; i++ ) {

if ( n % prime[i] == 0 ) {

int tempSum = 1; //Contains value of (p^0+p^1+...p^a)

int p = 1;

while ( n % prime[i] == 0 ) {

n /= prime[i];

p \*= prime[i];

tempSum += p;

}

sqrtn = sqrt ( n );

res \*= tempSum;

}

}

if ( n != 1 ) {

res \*= ( n + 1 ); //Need to multiply (p^0+p^1)

}

return res;

}