```
 1 package hcf;
 2 //importing scanner to collect input
 3 import java.util.Scanner;
 4 public class Hcf {
 5     public static void main(String[] args) {
 6         //setting scanner
 7         Scanner input = new Scanner(System.in);
 8         // asking the user to enter the number of numbers that will be
use in the calculation fo the lcm
 9         System.out.print("how many numbers do you want to use in your
calculation of hcf ");
10         // collecting user respons
11         int enter = input.nextInt();
12         // creating an array setting the array to save the defined
number of numbers to be used in ythe calculation
13         int [] numbers = new int [enter];
14         //creata loop to collect numbers according the defined size of
array
15         for (int k =0; k < enter ;k++){
16             System.out.print(" enter "+(k+1)+":");
17             numbers[k]=input.nextInt();
18         }
19         //set the initial lcm to the first number in the array
20         int h_c_f = numbers[0];
21         //set thr rest of the remaining numbers in the array and
calculate the hcf of all the numbers
22         for (int k =1; k < enter ;k++){
23             h_c_f = gcd(h_c_f,numbers[k]);
24         }
25         //printing output
26         System.out.print("The HCF of of the input numbers is :"+h_c_f);
27     }
28     //a fuction to calculate greatest common divisor
29     private static int gcd (int a, int b){
30       if (b==0)
31           return a;
32       return gcd(b,a%b);
33     }
34
35 }
```