

## Contents

1	Section1	
1.1	basic . . . . .	
2	Section2 Math	
2.1	GCD . . . . .	
3	Section3 String	
3.1	string . . . . .	
4	Java	
4.1	java biginterger . . . . .	
5	數學公式 (未更新)	
5.1	thm . . . . .	

## 1 Section1

### 1.1 basic

```

1 #include <bits/stdc++.h>
2 using namespace std;
3 #define ll long long
4
5 int main() {
6
7     cout<<"for define \n";
8     return 0;
9 }

```

## 2 Section2 Math

### 2.1 GCD

```

1 #include<iostream>
2 using namespace std;
3 int GCD(int x,int y){
4     while(y != 0){
5         return GCD(y,x%y);
6     }
7     return x;
8 }
9
10 int main(){
11     int a,b;
12     cin>>a>>b;
13     int gcd = GCD(a,b);
14     int lcm = a*b/gcd;
15
16     cout<<"最大公因數為: "<<gcd<<"\n";
17     cout<<"最小公倍數為: "<<lcm<<"\n";
18     return 0;
19 }

```

## 3 Section3 String

### 3.1 string

```

1 #include<iostream>
2 #include<string>
3 using namespace std;
4
5 int main(){
6     //初始化字串
7     string s1 = "",s2 = "";
8     long long a;
9     int b;
10

```

```

11 //吃整行(含空格)
12     getline(cin,s1);
13
14 //compare,assign,串接
15     s1 == s2;
16     s1 = s2;
17     s1 += s2[i];
18
19 //字串切割,i:起始位置,len:幾個
20     s1 = s1.substr(i,len);
21
22 //轉成數字或數字轉字串
23     s1 = to_string(a);
24     s2 = to_string(b);
25     a = stoll(s1);
26     b = stoi(s2);
27
28 //判斷數字,字母
29     isdigit(s1[i]);
30     isalpha(s2[i]);
31     return 0;
32 }

```

## 4 Java

### 4.1 java biginterger

```

1 import java.io.*;
2 import java.util.*;
3 import java.math.BigInteger;
4
5 public class bigint {
6     public static void main(String args[]) {
7         Scanner cin = new Scanner(System.in);
8         //Java大數運算宣告BigInteger
9         //首先宣告plus代表做加法運算
10         BigInteger plus = BigInteger.valueOf(0);
11         //首先宣告minus代表做減法運算
12         BigInteger minus = BigInteger.valueOf(0);
13         while ( cin.hasNext() ) {
14             //接下來讀入一整行字串
15             String str = cin.next();
16             //宣告num代表讀入進來的一整行數字
17             //然後把str丟到BigInteger num裡面
18             BigInteger num = new BigInteger(str);
19             if ( str.equals("0") ) break;
20             else {
21                 plus = plus.add(num);
22                 minus = minus.subtract(num);
23             }
24         }
25         System.out.print("The plus sum is " + plus +
26                             "\n");
27         System.out.print("The minus sum is " + minus
28                             + "\n");
29     }
30 }

```

## 5 數學公式 (未更新)

### 5.1 thm

- 中文測試

$$\sum_{i=1}^n i^2 = \frac{n(n+1)(2n+1)}{6}$$