2016/4/9 bigint

BigInteger		

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```
#include <string>
#include <sstream>
#include <map>
#include <vector>
#include <iostream>
#include <stdio.h>
#include <string.h>
using namespace std;
struct BigInteger {
  static const int BASE = 100000000;
  static const int WIDTH = 8;
  vector<int> s;
  BigInteger(long long num = 0) { *this = num; }
  BigInteger operator = (long long num) {
    s.clear();
    do {
      s.push_back(num % BASE);
      num /= BASE;
    } while(num > 0);
    return *this;
  BigInteger operator = (const string& str) {
    s.clear();
    int x, len = (str.length() - 1) / WIDTH + 1;
    for(int i = 0; i < len; i++) {</pre>
      int end = str.length() - i*WIDTH;
      int start = max(0, end - WIDTH);
      sscanf(str.substr(start, end-start).c_str(), "%d", &x);
      s.push_back(x);
    }
    return *this;
  BigInteger operator + (const BigInteger& b) const {
    BigInteger c;
    c.s.clear();
    for(int i = 0, g = 0; ; i++) {
      if(g == 0 && i >= s.size() && i >= b.s.size()) break;
      int x = g;
      if(i < s.size()) x += s[i];</pre>
      if(i < b.s.size()) x += b.s[i];
      c.s.push_back(x % BASE);
      g = x / BASE;
    }
    return c;
  }
};
ostream& operator << (ostream &out, const BigInteger& x) {</pre>
  out << x.s.back();</pre>
  for(int i = x.s.size()-2; i >= 0; i--) {
```

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```
char buf[20];
    sprintf(buf, "%08d", x.s[i]);
    for(int j = 0; j < strlen(buf); j++) out << buf[j];</pre>
  return out;
}
istream& operator >> (istream &in, BigInteger& x) {
  string s;
  if(!(in >> s)) return in;
 x = s;
  return in;
}
int main(void){
  BigInteger a, b, c;
  cin >> a >> b;
  c = a + b;
  cout << a << "\n";</pre>
  cout << b << "\n";</pre>
  cout << c << "\n";
  return 0;
}
```