```
 1: #include <iostream>
 2: #include <string.h>
 3: #include <vector>
 4: using namespace std;
 5:
 6: class LFSR
 7: {
 8: public:
 9:         LFSR(string seed, int tap);
10:
11:         int step();
12:
13:         int generate(int k);
14:
15:         friend ostream& operator<< (ostream &out, const LFSR &obj);
16:
17:         //~LFSR();
18:
19: private:
20:         vector<int> seed;
21:         int tap;
22: };
```