#include <iostream>

#include <stdlib.h>

#define N 50000

using namespace std;

struct Stack

{

int s[N];

int top;

};

void makenull(Stack &S)

{

S.top = -1;

}

void push(Stack &S, int x)

{

if(S.top == N)

cout << "满" << endl;

else

S.s[++S.top] = x;

}

int pop(Stack &S)

{

if(S.top == -1)

{

cout << "不匹配" << endl;

exit(1);

}

else

return S.s[S.top--];

}

void print1(Stack S, int n)

{

for(int i = 0; i < n; i++)

{

cout << pop(S) << " ";

}

}

void change(Stack S, Stack &R, Stack &M)

{

int j;

for(int i = 0; i < 20; i++)

{

j = pop(S);

if(i % 2 == 0)

push(R, j);

else

{

push(M, j);

cout << j << endl;

}

}

}

int main()

{

int i;

Stack S, R, M;

makenull(S);

makenull(R);

makenull(M);

for(i = 0; i < 20; i++)

{

push(S, i);

}

cout << "栈1：" << endl;

print1(S, 20);

change(S, R, M);

cout << endl;

cout << "栈2：" << endl;

print1(R, 20);

cout << endl;

cout << "栈3：" << endl;

print1(M, 20);

return 0;

}