时间限制：C/C++/Rust/Pascal 4秒，其他语言8秒
空间限制：C/C++/Rust/Pascal 1024 M，其他语言2048 M
Special Judge, 64bit IO Format: %lld

## 题目描述

Given integers $a_1, a_2, \ldots, a_n$ and $M$, please find out a polynomial $f(x) = \sum_{i=0}^{k} c_i x^i$ with integer coefficients satisfying

1. for all $1 \leq i \leq n$, $f(i) \equiv a_i \pm 1 \mod M$.
2. $k$ is minimized.

### 输入描述:

The first line of the input contains integers $n$ and $M$ ($1 \leq n \leq 30$, $2 \leq M \leq 10^9$).

The second line of the input contains $n$ integers $a_1, a_2, \ldots, a_n$ ($0 \leq a_i < M$).

Please note that $M$ is not necessarily a prime number.

### 输出描述:

If there exists no solution, output $-1$ in one line.

Otherwise, output a single integer $k$ ($0 \leq k \leq 10^6$) in one line. Then, output $k+1$ integers $c_0, c_1, \ldots, c_k$ ($0 \leq c_i < M$), denoting the coefficients of the polynomial. If there exist multiple solutions, output any.

### 示例1

输入 复制

```
5 998244353
1 3 5 9 11
```

输出 复制

```
1
0 2
```

C++（clang++18）

1

ACM模
请通过
入输出
出描述

运行结果 自测