7 Fraction Problem

For the given integer n, find all integers p such that $1 \leq p < n$ and the following formula is an integer.

$$\frac{n - \frac{1}{2}p}{n - p}$$

7.1 Input

The input contains T testcases, the first line is an integer T ($1 \leq T \leq 10^3$), denoting the number of testcases.

For each test case, the input contains only one integer n ($2 \leq n \leq 10^9$) in one line, denoting the n in the above formula.

7.2 Output

For each testcase, output two lines.

The first line contains only one integer $|a|$, denoting the number of valid p.

The second line contains $|a|$ integers, denoting the array a consisting of all valid p sorted in ascending order. The i-th number of a is a_i, denoting the i-th smallest valid p.

7.3 Sample Input/Output

Sample Input 1	Sample Output 1
5 10 100 1000 10000 100000	1 8 2 80 96 3 800 960 992 4 8000 9600 9920 9984 5 80000 96000 99200 99840 99968
Sample Input 2	Sample Output 2
5 2 3 4 5 6	0 1 2 0 1 4 1 4