Problem A. 72769. Odd or Even

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given an integer, n, perform the following conditional actions:

- If n is odd, print "Odd"
- If n is even, print "Even"
- If n is 0, print "None"

Input

A single line containing a positive integer, n. $0 \leq n \leq 100$

Output

Print Odd, Even or None according to the task.

Examples

standard input	standard output
5	Odd
89	Odd
0	None
16	Even
13	Odd
96	Even

Problem B. 72770. Super numbers

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given an integer, n, perform the following conditional actions:

- If n is odd, print "Super"
- If n is even and in the inclusive range of 2 to 5, print "Not Super"
- If n is even and in the inclusive range of 6 to 20, print "Super"
- if n is even and greater than 20, print "Not Super"

Input

A single line containing a positive integer, n. $1 \leq n \leq 100$

Output

Print Super according to the task, otherwise print Not Super

Examples

standard input	standard output
3	Super
100	Not Super
14	Super
5	Super
89	Super

Problem C. 72772. Leap year

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

It is required to determine whether a given year is a leap. A year is a leap if the number is divided by 4, but not by 100, and also if it is divided by 400.

Input

Input a single number - the number of the year. $1 \leq year \leq 30000$

Output

Output "YES"or "NO"

Examples

standard input	standard output
2007	NO
2000	YES
3005	NO
2012	YES
30000	YES

Problem D. 72773. Steaks

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

After the personal contest, happy but hungry programmers dropped into the restaurant Kaganat and ordered n specialty steaks. Each steak is cooked by frying each of its sides on a frying pan for one minute.

Unfortunately, the chef has only one frying pan, on which at most k steaks can be cooked simultaneously. Find the time the chef needs to cook the steaks.

Input

The only input line contains the integers n and k separated with a space $1 <= n, k <= 1000$

Output

Output the minimal number of minutes in which the chef can cook n steaks.

Examples

standard input	standard output
3 2	3
4 8	2
13 7	4
5 10	2
1 2	2
15 2	15

Problem E. 72776. Which one

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Input

Two integers are given.

Output

The program should output the number 1 if the first number is greater than the second, the number 2 if the second is greater than the first, or the number is 0 if they are equal.

Examples

standard input	standard output
2 7	2
4 3	1
9 5	1
100 1	1
1 1	0

Problem F. 72778. Sum

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

In this task, you should find the sum of all numbers from 1 to n.

Input

Given the positive integer n. $1 \leq n \leq 1000$

Output

Output the sum.

Examples

standard input	standard output
3	6
10	55
1	1
7	28
100	5050

Problem G. 72779. Maxi

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given n integers. In this task, you should find the maximum from these numbers.

Input

In first line, given n. $1 \leq n \leq 1000$. In the second line, given n integer numbers.

Output

Output the maximum.

Examples

standard input	standard output
5 1 2 3 4 5	5
4 1 1 2 1	2
10 1 2 3 1 2 3 10 2 1 11	11
1 2	2
2 1 100	100

Problem H. 72782. Interesting problem

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given n numbers you need to count the number of even and the number of odd numbers from the given list.

Input

In the first line, input n. $1 \leq n \leq 1000$ In the second line, given n integers

Output

In the first line, output the number of evens, after that output the number of odds.

Examples

standard input	standard output
5 1 2 3 4 5	2 3
1 2	1 0
10 1 1 1 1 1 1 1 1 1 1	0 10
3 1 2 1	1 2
8 4 4 4 4 4 4 4 4	8 0

Problem I. 72784. Great seven

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Among n numbers you need to count the number of numbers that ends with 7.

Input

In the first line, input n. $1 \leq n \leq 1000$. In the second line, input n positive integer numbers.

Output

Output the number of numbers that ends with 7.

Examples

standard input	standard output
1 4	0
10 7 77 7 7 7 7 7777 7 7 77	10
4 10 71 70 7	1
5 10 10 10 10 13	0
7 7 7 7 7 7 7 71	6

Problem J. 72785. From zero to hero

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given n numbers you need to output the number of zeros among these numbers.

Input

In the first line, input n. $1 \leq n \leq 1000$. In the second line, input n positive integer numbers.

Output

Output the answer to the problem.

Examples

standard input	standard output
5 100 10 101 11 50	5
4 301 1 20 88	2
7 1 1 1 1 1 1 1	0
2 101 10	2
8 10 1000 10101 5 1 2 10 51	7

Problem K. 72787. Super square

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Find all exact squares of natural numbers that do not exceed a given number N.

Input

Given positive integer N.

Output

Output answer for the problem in each line.

Examples

standard input	standard output
10	1 4 9
21	1 4 9 16
4	1 4
16	1 4 9 16
1000	1 4 9 16 25 36 49 64 81 100 121 144 169 196 225 256 289 324 361 400 441 484 529 576 625 676 729 784 841 900 961

Problem L. 72789. 2Power

Input file:	standard input
Output file:	standard output
Time limit:	1 second
Memory limit:	256 megabytes

For a given number N, print out all integer powers of two that do not exceed N, in increasing order.

Input

Given positive integer N.

Output

Output answer for the problem.

Examples

standard input	standard output
50	1 2 4 8 16 32
32	1 2 4 8 16 32
1	1
28	1 2 4 8 16
100	1 2 4 8 16 32 64

Problem M. 72792. Bitwise AND

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given two integers a and b. You should do AND operation between them.

Input

Given two integers a, b. $1 \leq a, b \leq 100$

Output

Output the answer to the problem.

Examples

standard input	standard output
1 2	0
5 10	0
7 7	7
12 13	12
0 100	0

Problem N. 72794. Bitwise OR

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given two integers a and b. You should do OR operation between them.

Input

Given two integers a, b. $1 \leq a, b \leq 100$

Output

Output the answer to the problem.

Examples

standard input	standard output
1 4	5
10 14	14
33 33	33
15 18	31
23 87	87

Problem O. 72795. Bitwise XOR

Input file:	`standard input`
Output file:	`standard output`
Time limit:	1 second
Memory limit:	256 megabytes

Given two integers a and b. You should do XOR operation between them.

Input

Given two integers a, b. $1 \leq a, b \leq 100$

Output

Output the answer to the problem.

Examples

standard input	standard output
0 1	1
1 1	0
0 0	0
21 14	27
1 15	14