Problem A. 79054. Battleship

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

Given 2D array. Then k times given coordinates of cells i, j that need to be bombed. Print amount of all surviving sells.

Input

First line contains n, m - size of 2D array(1<=n<=10, 1<=m<=10). Second line contains k - amount of bombing(0<=k<=10). Then n times given i, j - coordinates of cells that need to be bombed(0<=i<=10, 0<=j<=10).

Output

Print solution for the problem.

Example

standard input	standard output
4 5 3 0 1 3 4 1 2	17

Problem B. 78564 Clock

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

Given how many hours the clock shows. Find the degree of the clock regarding to 12.

Input

Single integer h, 0<=h<=12.

Output

Single integer d degree between present time and 12. 0<=d<=180.

Example

standard input	standard output
3	90

Problem C. 78495 Flip the coin

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

Given coin whose eagle side looks up. Find the side of coin that looks up after n flips.

Input

Input contains integer 0 <= n <= 10^9.

Output

Output EAGLE if after all flips coin's eagle side looks up or TAILS otherwise.

Example

standard input	standard output
1	TAILS

Problem D. 79155 Piggy bank

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

N times given the name of the person and how much money he putted in the piggy bank.

Input

First line contains n(1<=n<=15).

Output

Print names in ascending order and total money of this person putted into piggy bank.

Example

standard input	standard output
5 Ayan 5 Jonger 6 Ayan 20 Roma 30 Ayan 50	Ayan 75 Jonger 6 Roma 30

Problem E. 78668 Longest window

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

Given an array where every number with even index i(indexes started from 1) represents the time when lesson starts. And every next number with index $i+1$ represents the time when the lesson ends. Find the length of longest gap aka "window"between lessons.

Input

In first line you have n - size of the array.(2<=n<=20) Second line contains elements of the array. n - even number.

Output

Print answer for the problem.

Examples

standard input	standard output
6 1 2 4 5 8 10	3
2 1 2	0
4 1 2 10 30	8

Note

3rd example: 1st lesson starts at the 1 and ends at 2. 2nd lesson starts at the 10 and ends at 30. So we have only one gap with the length 8.

Problem F. 79080 Sort the string

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

Given string containing n numerals(0<=n<=9). Sort numerals in increasing order. Print changed string.

Input

Given string.

Output

Print solution for this problem.

Example

standard input	standard output
87654321	12345678

Problem G. 79009 Train

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

Given an array where differences between i's value and (i + 1)'s value is the distance between stations i and i + 1. Find how much time does it take to reach the final station if train move with speed v.

Input

First line contains n - size of an array(2<=n<=100). Then given elements of an array. Third line contains v - speed of train(1<=v<=1000).

Output

Output contains double(print only 2 numbers after floating point).

Example

standard input	standard output
4 1 -5 3 2 5	3.00