

****Problem Statement 1:**

Write a C Program to reverse each and every word in a given sentence.

Constraints:

$1 < t < 100$

$1 \leq \text{number of characters in the input} \leq 10^8$

Input:

First line denotes the number of test cases.

Followed by 't' sentences.

Output:

Each word of respective input should be reversed.

Sample input:

2

C is the most efficient programming language even today.

Plagiarism leads to 'F' grade.

Sample output:

C si eht tsom tneiciffe gnimmargorp egaugnal neve yadot.

msiragaP sdael ot 'F' edarg.

KeyNote:

'.' is taken as input and it should print at the end of the output too.

*****Problem Statement 2:-**

Design a program to verify the consecutive ones property for the given 2D binary matrix of $m \times n$.

Consecutive Ones Property:-

In every row and column if there are ones they should be consecutive.

Constraints:-

$1 < t < 100$

$n < 100$

Input:-

First line denotes the number of test cases.

In each test case, first line denotes the value of m and n separated with spaces.

Followed by m lines with n elements in each line.

Output:-

0 – if it is not following the consecutive ones property.

1 – if it is following the consecutive ones property

Sample Input:-

2

2 3

0 1 1

1 1 1

3 3

1 1 1

0 1 1

1 0 1

Sample Output:

1

0

Note:-

If there are no ones, still it should print 1.

Problem Statement 3: [\[EASY\]](#)

Given an integer, check whether it is a palindrome or not.

Constratints:-

$1 < t < 100$

$0 \leq n \leq 2^{40}$

Input:-

First line denotes number of testcases.

Next t lines are some integers.

Output:-

0 – if it is not a palindrome.

1 – if it is a Palindrome.

Sample input:-

2

151

123

Sample Output:-

1

0

***Problem Statement 4:-**

Design a C Program which counts number of letters, numbers of words and number of lines in a given short story.

Constraints:-

$1 < t < 100$

$0 < \text{number of characters} < 10^8$

Input:-

First line indicates number of test cases.

Followed by t short stories.

Output:-

letter count, Word count, Line count of respective input in a single line separated with spaces.

Sample Input:-

1

Vaishnav is the most intelligent fellow of IIIT Sri City. He is one of the busiest person in college.
He knows everything.

Sample Output:-

98 22 2

****Problem Statement 5:-**

Design a program to print the pascal triangle of n lines

Constarints:-

$1 < t < 100$

$n \leq 50$

Input:-

First line indicates number of test cases.

Next t lines gives the value of n.

Output:-

n lined pascal triangle.

Sample Input:-

1

4

Sample Output:-

1

1 1

1 2 1

1 3 3 1

*****Bonus Question:** Problem Statement:

Creating a Fractal Tree from inverted Y-shaped branches of n iterations.

Constraints:

$0 \leq n \leq 15$

Input Format:

First line denotes the number of test cases.

Next lines denotes the value of n.

Output Format:

respective pattern should be printed.

Sample Input:

1
2

Sample Output:

```
  1
  1
  1
  1
 1 1
1  1
1  1
1  1
1  1
1 1 1 1
1 1 1 1
```