

1. if – elif:

Dinesh started learning Geometry today. He doesn't know the formulae to calculate the areas of different shapes. His teacher has just taught him how to calculate the areas of basic shapes including square, rectangle, triangle and circle. He is facing the problem to memorise all these formulae. Create a python logic to help Dinesh to display the formulae when he selects the shape.

Hint:

Area of Square = side²

Area of Rectangle= lengthXbreadth

Area of Triangle = 0.5XbaseXheight

Area of circle= 3.14Xradius

Dinesh will enter letters S for Square, R for Rectangle, T for triangle and C for Circle

Input

One line of input contains the First alphabet of shape in Capital form.

Output

Formula for corresponding shape.

Example input

S

Output

side ²

Note:

Use capital 'X' as multiplication and '^' for power.

Avoid spaces in formulae Example: for input 'C' the output is 3.14Xradius²

Show message 'Enter valid alphabet' for the input other than specified letters

2. if – else:

3 friends are planning a holiday trip. They are searching for their destination. They visited an awesome website which helps people to decide the holiday destination in India according to the months of the year.

From February to May -Shimla Manali Ooty

From June to September - Lonavala Goa Kodaikanal

From October to January - Munnar Kullu Manali

Input

A single number for the respective month

Output

Suggestion as per the list given

Example Input

2

Output

Shimla Manali Ooty

Note: if number entered is more than 12 then print message "Enter valid number"

3. if – else:

Siddesh is an accountant at XYZ company. He is responsible for calculating the income tax of the employees in the company. He has the following reference tax slabs according to the new tax regime.

| Income Tax Slab | Tax Rates As Per New Regime |
|-------------------------|--|
| ₹0 - ₹2,50,000 | Nil |
| ₹2,50,001 - ₹ 5,00,000 | 5% |
| ₹5,00,001 - ₹ 7,50,000 | ₹12500 + 10% of total income exceeding ₹5,00,000 |
| ₹7,50,001 - ₹ 10,00,000 | ₹37500 + 15% of total income exceeding ₹7,50,000 |
| ₹10,00,001 - ₹12,50,000 | ₹75000 + 20% of total income exceeding ₹10,00,000 |
| ₹12,50,001 - ₹15,00,000 | ₹125000 + 25% of total income exceeding ₹12,50,000 |
| Above ₹ 15,00,000 | ₹187500 + 30% of total income exceeding ₹15,00,000 |

Mohan has given income as the input. Write a python logic to calculate how much income tax is deducted annually from his salary.

Input

Annual salary in int

Output

Total tax

Example Input

600000

Output

22500

4. Loops:

Arvind wants to print leap years starting between the years 2000 and 2100. Write a python logic to help him.

Input

The first line of input contains the start year The second line of input contains end year

Note: Both years should be included in answer if they are leap years

Output

All leap years

Example Input

2004

2030

Output

2004

2008

2012

2016

2020

2024

2028

5. Loops:

Ishan is an accountant in a small-scale firm. His job is to make simple calculations using + - * / operators frequently. Create a python program to create continuous calculations until he selects **Stop**.

Input

The first input is the first letter of arithmetic operation i.e. "A" for addition, "S" for subtraction, "D" for division and "M" for multiplication. second and third line of input is two numbers fourth line of input is "Stop"

Output

Answers after arithmetic calculations.

Example Input

A

5

3

Stop

Output

8

6. for loop:

For a given input integer n and symbol create the following pattern.

Input

the first line of the input is the number

the second line of the input is a symbol

Output

Pattern of symbols

Example Input 1

8

*

Output 1

*

**

**

*

Input 2

5

\$

Output 2

\$

\$\$

\$\$\$

\$\$\$\$

\$\$\$\$\$

\$\$\$\$

\$\$\$

\$\$

\$

7. You are given a string in the input. Print each character of the string in the same line except any special character or symbol from "~`!@#\$%^&*()<>?//|}{:.".

Input

String with special characters

Output

string without special characters.

Example Input

abc.xyz#123

Output

abcxyz123

8. Print the following pattern for different symbols given in input.



Input

the first line contains the integer

second line of the input contains the symbol

Output

Print the above given pattern

Example Input

5

#

Output

