1.Write a Python program to construct the following pattern, using a nested loop number. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
*Expected Output:*

1

22

333

4444

55555

666666

7777777

88888888

999999999

2. Write a Python program to create the multiplication table (from 1 to 10) of a number. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

Input a number: 6

6 x 1 = 6

6 x 2 = 12

6 x 3 = 18

6 x 4 = 24

6 x 5 = 30

6 x 6 = 36

6 x 7 = 42

6 x 8 = 48

6 x 9 = 54

6 x 10 = 60

3. Write a Python program to get next day of a given date. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

Input a year: 2016

Input a month [1-12]: 08

Input a day [1-31]: 23

The next date is [yyyy-mm-dd] 2016-8-24

4. Write a Python program to find the median of three values. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

Input first number: 15

Input second number: 26

Input third number: 29

The median is 26.0

5.

Write a Python program that reads two integers representing a month and day and prints the season for that month and day. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

Input the month (e.g. January, February etc.): july

Input the day: 31

Season is autumn

6.

Write a Python program to check a string represent an integer or not. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

Input a string: Python

The string is not an integer.

7.

Write a Python program to sum of two given integers. However, if the sum is between 15 to 20 it will return 20.[Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)

8.

Write a Python program to convert month name to a number of days. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

List of months: January, February, March, April, May, June, July, August

, September, October, November, December

Input the name of Month: February

No. of days: 28/29 days

9.

Write a Python program to check whether an alphabet is a vowel or consonant. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

Input a letter of the alphabet: k

k is a consonant.

10.

Write a Python program to calculate a dog's age in dog's years. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Note: For the first two years, a dog year is equal to 10.5 human years. After that, each dog year equals 4 human years.  
Expected Output:

Input a dog's age in human years: 15

The dog's age in dog's years is 73

11.

Write a Python program to print alphabet pattern 'Z'. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

\*\*\*\*\*\*\*

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\*

\*\*\*\*\*\*\*

12.

Write a Python program to print alphabet pattern 'X'.[Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Expected Output:

\* \*

\* \*

\* \*

\*

\* \*

\* \*

\* \*

12.

Write a Python program to find numbers between 100 and 400 (both included) where each digit of a number is an even number. The numbers obtained should be printed in a comma-separated sequence.[Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
[Click me to see the sample solution](https://www.w3resource.com/python-exercises/python-conditional-exercise-16.php)

14.

Write a Python program to check the validity of password input by users. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Validation :

* At least 1 letter between [a-z] and 1 letter between [A-Z].
* At least 1 number between [0-9].
* At least 1 character from [$#@].
* Minimum length 6 characters.
* Maximum length 16 characters.

15.

Write a Python program which accepts a sequence of comma separated 4 digit binary numbers as its input and print the numbers that are divisible by 5 in a comma separated sequence. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Sample Data : 0100,0011,1010,1001,1100,1001  
Expected Output : 1010

16.

Write a Python program that accepts a sequence of lines (blank line to terminate) as input and prints the lines as output (all characters in lower case). [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
[Click me to see the sample solution](https://www.w3resource.com/python-exercises/python-conditional-exercise-12.php)

17.

Write a Python program which takes two digits m (row) and n (column) as input and generates a two-dimensional array. The element value in the i-th row and j-th column of the array should be i\*j. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Note :  
i = 0,1.., m-1   
j = 0,1, n-1.

Test Data : Rows = 3, Columns = 4   
Expected Result : [[0, 0, 0, 0], [0, 1, 2, 3], [0, 2, 4, 6]]  
[Click me to see the sample solution](https://www.w3resource.com/python-exercises/python-conditional-exercise-11.php)

18.

 Write a Python program to get the Fibonacci series between 0 to 50. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Note : The Fibonacci Sequence is the series of numbers :  
0, 1, 1, 2, 3, 5, 8, 13, 21, ....   
Every next number is found by adding up the two numbers before it.  
Expected Output : 1 1 2 3 5 8 13 21 34

19.

Write a Python program that prints all the numbers from 0 to 6 except 3 and 6.  
Note : Use 'continue' statement.   
Expected Output : 0 1 2 4 5

20.

 Write a Python program that prints each item and its corresponding type from the following list.  
Sample List : datalist = [1452, 11.23, 1+2j, True, 'w3resource', (0, -1), [5, 12], {"class":'V', "section":'A'}]  
[Click me to see the sample solution](https://www.w3resource.com/python-exercises/python-conditional-exercise-7.php)

21.

Write a Python program that accepts a word from the user and reverse it. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
[Click me to see the sample solution](https://www.w3resource.com/python-exercises/python-conditional-exercise-5.php)

22.

Write a Python program to guess a number between 1 to 9. [Go to the editor](https://www.w3resource.com/python-exercises/python-conditional-statements-and-loop-exercises.php#EDITOR)  
Note : User is prompted to enter a guess. If the user guesses wrong then the prompt appears again until the guess is correct, on successful guess, user will get a "Well guessed!" message, and the program will exit.  
[Click me to see the sample solution](https://www.w3resource.com/python-exercises/python-conditional-exercise-3.php)