

## Python – Problem Sheet

1. Write a python program to check whether the entered character is an Alphabet (a-z, A-Z) or not.  
Eg:  
Input: Given Character: 'A'  
Output: The given character is an alphabet  
  
Input: Given Character: '0'  
Output: The given character is not an alphabet
2. Write a python program to **check whether the input number is prime or not.**
3. Write a python program to **check whether the given year is leap year or not.**
4. Write a Python program to get a string made of the first 7 and the last 2 chars from a given a string. If the string length is less than 7, print error message like "String size is not sufficient".

Sample String : India is our country  
Expected Result : India iry

Sample String : VIT  
Expected Result : String size is not sufficient

5. Write a Python program to get a single string from two given strings, separated by a space and swap the first two characters of each string.

Sample String : 'Ajith', 'Kumar'  
Expected Result : 'Kumar Ajith'

6. Write a python program to swap two integer numbers **using only two variables**. Temporary variables should not be used.
7. Print the following pattern using while loop.

Number of rows: 5

```
A
B C
D E F
G H I J
K L M N O
```

Number of rows: 3

```
A
B C
D E F
```

8. Print the following pattern using for loop.  
Number of rows: 4

```
A
B C
D E F
G H I J
```

Number of rows: 3

```
A
B C
D E F
```

9. Write a python program to print the following pattern using while loop.

Output:

```
0 1 2 3 4 5
0 1 2 3 4
0 1 2 3
0 1 2
0 1
```

10. Write a python program to print the following pattern using for loop.

Output:

```
0 1 2 3 4 5
0 1 2 3 4
0 1 2 3
0 1 2
0 1
```