Question 1:

Please write a program using generator to print the numbers which can be divisible by 5 and 7 between 0 and n in comma separated form while n is input by console.

Example:  
If the following n is given as input to the program:

100

Then, the output of the program should be:

0,35,70

**Ans: n = int(input())**

**for i in range(0, n+1, 2):**

**if i < n - 1:**

**print(i, end = ',' )**

**else:**

**print(i)**

Question 2:

Please write a program using generator to print the even numbers between 0 and n in comma separated form while n is input by console.

Example:  
If the following n is given as input to the program:

10

Then, the output of the program should be:

0,2,4,6,8,10

**Ans: n = int(input())**

**for i in range(0, n+1, 2):**

**if i < n - 1:**

**print(i, end = ',' )**

**else:**

**print(i)**

Question 3:

The Fibonacci Sequence is computed based on the following formula:

f(n)=0 if n=0  
f(n)=1 if n=1  
f(n)=f(n-1)+f(n-2) if n>1

Please write a program using list comprehension to print the Fibonacci Sequence in comma separated form with a given n input by console.

Example:  
If the following n is given as input to the program:

7

Then, the output of the program should be:

0,1,1,2,3,5,8,13

**Ans: def f(n):**

**if n == 0: return 0**

**elif n == 1: return 1**

**else: return f(n-1)+f(n-2)**

**n=int(raw\_input())**

**print f(n)**

Question 4:

Assuming that we have some email addresses in the "[username@companyname.com](mailto:username@companyname.com)" format, please write program to print the user name of a given email address. Both user names and company names are composed of letters only.

Example:  
If the following email address is given as input to the program:

[john@google.com](mailto:john@google.com)

Then, the output of the program should be:

john

**Ans: import re**

**emailAddress = raw\_input()**

**pat2 = "(\w+)@(\w+)\.(com)"**

**r2 = re.match(pat2,emailAddress)**

**print r2.group(1)**

Question 5:

Define a class named Shape and its subclass Square. The Square class has an init function which takes a length as argument. Both classes have a area function which can print the area of the shape where Shape's area is 0 by default.

**Ans: class Shape(object):**

**def \_\_init\_\_(self):**

**pass**

**def area(self):**

**return 0**

**class Square(Shape):**

**def \_\_init\_\_(self, l):**

**Shape.\_\_init\_\_(self)**

**self.length = l**

**def area(self):**

**return self.length\*self.length**

**aSquare= Square(3)**

**print aSquare.area()**