**PYTHON ASSINGMENT**

Name: ?????

Section: CSE – D

1. Write a program to print the Fibonacci series, Armstrong numbers from 1 to 1000.

a program to print the Fibonacci series

ALGORITHM

* Step 1: Start
* Step 2: Assign a=0,b=1
* Step 3: Check while b<1000
* Step 4: Print b
* Step 5: Assign a,b=b,a+b
* Step 6: Stop

CODE

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a program to print the ARMSTRONG NUMBERS FROM 1 TO 1000

ALGORITHM

* Step 1: Start
* Step 2: By using for loop to print the values From the given interval
* Step 3: Assign inn = 1, isum = 0
* Step 4: using while loop to check inn > 0
* Step 5: Calculate irem = inn % 10
* Step 6: Calculate isum = isum + (irem \* irem \* irem)
* Step 7: inn = inn // 10
* Step 8: Check isum == 1
* Step 9: Display isum
* Step 10: Stop

CODE

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1. Write a program to print the prime numbers from 1 to 50.

ALGORITHM

* Step 1: Start
* Step 2: Enter Lower and Upper Number
* Step 3: Using For loop iterating the Upper number +1
* Step 4: Check num>1
* Step 5: Using For loop Check range(2,num)
* Step 6: Check (num%i)==0,break
* Step 7: Else print num
* Step 8: Stop

CODE

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1. Write a program to find the sum of the following series:

1+1/23+1/33+…….

ALGORITHM

* Step 1: Start
* Step 2: Enter n
* Step 3: Assign sum1=0
* Step 4: For i=1 to n+1
* Step 5: then sum1=sum1+(1/pow(I,3))
* Step 6: Print sum1,2
* Step 7: Stop

CODE

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1. Write a Python program to generate the next 15 leap years starting from a given year.

ALGORITHM

* Step 1: Start
* Step 2: Assign k=o
* Step 3: Enter year
* Step 4: Check year %100!=0 or n%400==0) and print year
* Step 5: Else print “Is not a Leap Year”
* Step 6: While k!=16,k=k+1,n=n+4
* Step 7: Print Years
* Step 8: Stop

CODE

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1. The program provided in the starter code tab is written to display “\*” as per the expected output given below. But the code is having logical errors, debug the program using Eclipse Debugger and correct it.

Expected Output:

\*\*\*\*\*

\*\*\*\*

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\*

ALGORITHM

* Step 1: Start
* Step 2: Enter the Number of Rows
* Step 3: For I,range(rows+1,0,-1)
* Step 4: For J,range(010,-1)
* Step 4: For J,range(0,i,-1)
* Step 5: Print \* according to the input
* Step 6: Stop

CODE

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1. Write a python program to solve a classic ancient Chinese puzzle.

We count 35 heads and 94 legs among the chickens and rabbits in a farm. How many rabbits and how many chickens do we have?

|  |  |
| --- | --- |
| **Sample Input** | **Expected Output** |
| heads-150 legs-400 | 100 50 |
| heads-3 legs-11 | No solution |
| heads-3 legs-12 | 0 3 |
| heads-5 legs-10 | 5 0 |

ALGORITHM

* Step 1: Start
* Step 2: Enter the Total number of heads
* Step 3: Enter the Total number of legs
* Step 4: Check legs%2!=0 or heads==0 or heads>legs then print “No Solution”
* Step 5: Else check r=(legs+(-2\*heads))/2 and c=heads-r
* Step 6: Print No.of.Heads and Legs
* Step 7: Stop

CODE

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