**Calculate Electric Bill**

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Create a class ElectricityBill, to calculate the bill amount for electricity consumed based on the input meter readings. Accept the previous and current meter readings in KW using a Scanner.

Bill amount for electricity charges are calculated based on the following

* The units consumed by customer is calculated by subtracting the previous meter reading from the current meter reading
* For the first 30 KW, the price is Rs 2.30/KW
* For the next 70 KW, the price is Rs 3.50/KW
* Units above 100 kw are charged at Rs 4.60/KW

**Calculation:**

1. current reading: 1251 kw, previous reading: 1000 kw

Units consumed = 251 kw, Bill Total = (30\*2.3) + (70 \* 3.5) + (151 \* 4.6)

1. current reading: 1090, previous reading: 1000

Units consumed = 90, Bill Total = (30\*2.3) + (60 \* 3.5)

**Input and Output format:**

Previous reading and current reading are integers. Bill amount is a float

***Sample***

Enter the previous reading

**1000**

Enter the current reading

**1251**

**Output:**

The Bill amount should be printed correct to 2 decimal places.

**Bill Amount is 1008.60**

Circle Data

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Write a program to calculate various data for a circle based on radius. The input to the program is the radius of circle and the required output data.

Refer the table below for the required output

|  |  |  |
| --- | --- | --- |
| **Output data required** | **Output code** | **Formula** |
| Diameter | DIA | 2 r |
| Area | AR | π r2 |
| Perimeter | PER | 2 π r |
| Area of Semi Circle | ARSEM | π r |

**Input and Output Format:**

Input consists of a radius(float) and string (output required). All floating point numbers are displayed correct to 2 decimal places. Refer sample input and output for formatting specifications.

**Sample Input :**

Enter the Radius

**5**

Enter Output required

**DIA**

**Sample Output :**

**Diameter of circle is 10**

**Special Sequence**

In a special sequence of numbers, 2, 1 and 3 are the 1st three numbers. All other numbers in the sequence are generated by the sum of their 3 most recent predecessors.

Write a program to generate this special sequence where the last number in the sequence is less than or equal to the input number ‘n’

**Input Format:**

Input consists of a single integer which corresponds to n.

**Output Format:**

Output consists of the Sequence, separated by a single space. There are no leading or trailing spaces in the output.

**Sample Input**

20

**Sample Output**

**2 1 3 6 10 19**

**Vehicle Number**

Raj is buying a two wheeler and believes in numerology. He is interested in getting a special registration number whose sum of digits is equal to 9. Registration numbers are of 4 digits.

Raj wants to go to the RTO with a list of numbers within a range to check the availability. Write a program to help Raj in identifying those numbers

**Input Format:**

Input consists of 2 integer’s m and n. m and n should be of 4 digits.

**Sample Input 1:**

1100

1120

**Sample Output 1:**

1107

1116

**Number Pattern**

Write a program to generate the following pattern. Multiples of 3 should be omitted in the pattern

1

2 2

4 4 4 4

5 5 5 5 5

7 7 7 7 7 7 7

…..

n n n n n...............n

**Input Format:**

Input consists of 1 integer which corresponds to n.

**Output Format:**

Refer sample output for details. [Note: 2 integers on the same line are separated by a space.]

**Sample Input :**

5

**Sample Output:**

1

2 2

4 4 4 4

**5 5 5 5 5**