Basic Python Coding Test-1

Q1. Write python program to print first letter of your name or last letter of your name as star pattern

Q2. Make hollow and solid diamond patterns.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  | \* |  |  |  |
|  |  | \* | \* | \* |  |  |
|  | \* | \* | \* | \* | \* |  |
| \* | \* | \* | \* | \* | \* | \* |
| \* | \* | \* | \* | \* | \* | \* |
|  | \* | \* | \* | \* | \* |  |
|  |  | \* | \* | \* |  |  |
|  |  |  | \* |  |  |  |

Q2.1 If n=7, Q2.2 If n=7,

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  | \* |  |  |  |
|  |  | \* |  | \* |  |  |
|  | \* |  |  |  | \* |  |
| \* |  |  |  |  |  | \* |
|  | \* |  |  |  | \* |  |
|  |  | \* |  | \* |  |  |
|  |  |  | \* |  |  |  |

Q3. Write a python program which takes three integers as an input from the user and print them in ascending order.

Q4. Write a program which takes a year as input and check whether this year is a leap year or not.

Q5.1 If n = 7 Q5.2 If n = 7

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| \* |  |  |  |  |  | \* |
| \* | \* |  |  |  | \* | \* |
| \* |  | \* |  | \* |  | \* |
| \* |  |  | \* |  |  | \* |
| \* |  | \* |  | \* |  | \* |
| \* | \* |  |  |  | \* | \* |
| \* |  |  |  |  |  | \* |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  |  |  | \* |  |  |  |
|  |  | \* |  | \* |  |  |
|  | \* |  |  |  | \* |  |
| \* | \* | \* | \* | \* | \* | \* |
| \* |  |  |  |  |  | \* |
| \* |  |  |  |  |  | \* |
| \* | \* | \* | \* | \* | \* | \* |

Q6. Write a program to check whether a number is Armstrong or not.

The Armstrong number is a number that is equal to the sum of all the digits, each digit having power of the length of that number.

  Example1: 153 = 1^3 + 5^3 + 3^3 (so 153 is Armstrong number.)

  Example2: 1634 = 1^4 + 6^4 + 3^4 + 4^4    so 1634 is an Armstrong number.

Q7. Write a Python program to calculate the final price of a product after applying a series of discounts based on the following conditions:

• If the product price is above Rs1000, apply a 10% discount.

• If the customer is a member, apply an additional 5% discount.

• If the purchase is made during a sale period, apply an additional 7% discount.

**Note**: Discount should be applicable on resultant price of previous discount.

Test Case:

Input: Product price = 1500

Is Customer member = Yes

Sale period = No

Output: Final Price = 1282.5

Q8. Write a python program which check Whether the given number as an input is a Palindrome or not.

**Explanation:** palindrome numbers are those whose reverse is equal to the original number.

|  |  |  |
| --- | --- | --- |
| **Input** | **Output** | **Explanation** |
| 121 | Palindrome | Reverse of 121 is 121, so it’s a palindrome. |
| 123 | Not a Palindrome | Reverse of 123 is 321, so it’s not a palindrome. |
| 1331 | Palindrome | Reverse of 1331 is 1331, so it’s a palindrome. |

Q9. Write a python program to generate all the factors of the given number and Check count of even and odd factors. Using ‘for’ loop.

Q10. Write a program that reads 2 numbers and an arithmetic operator like +, -, \*, /, % and display the computed result:

Example

Enter the 1 number: 5

Enter the 2 number: 2

Enter the operator: \*

Output: 10.0