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 theoriginal 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