

PROGRAMMING PROBLEM – SET 6

Question 1:- Input any Number and find out its sum of first and last digit.

For e.g. If number is 12345 then first digit is 1 and last digit is 5 and their sum is 6.

Question 2:- Input any Number and find out its sum of digit except first and last digit.

For e.g. if number is 12345 then 2, 3 and 4 are digit except first and last and their sum $2 + 3 + 4$ is 9

Question 3:- Input any number and check it is cool or not. Number is cool if sum of first digit and last digit is equal to sum of digit except first and last digit.

For e.g. If number is 12113

$$1 + 3 = 2 + 1 + 1$$

Question 4:- Input any number and check it is magic or not.

Magic Number:- Let us take a number 1729

Sum of digit of 1729 is $1 + 7 + 2 + 9 = 19$

Reverse of 19 is 91

Product of 19 and 91 is 1729.

The number which contain above properties is called Magic Number.

Question 5:- Input any number and check it is prime or not.

Question 6:- Input any number and display its prime factor.

For e.g. if number is 24 then 2, 2, 2, 3 are prime factor of this number.

Question 7:- Write a program to check given number is a perfect number or not.

For e.g. if number is 56

The positive divisor: 1, 2, 4, 7, 8, 14, 28 and their sum is 64. And sum of positive divisor of given number is not equal to 56 then this number is not a number.

Question 8:- Write a program to check whether a given number is Armstrong number or not.

For e.g. if number is 153

$$\text{And sum of cube of digit :- } 1^3 + 5^3 + 3^3 = 1 + 125 + 27 = 153$$

So such number is Armstrong.

Question 9:- Input any number and check it is palindrome or not.

A number whose reverse form is equal to itself is called Palindrome Number.

For e.g. 1441

Question 10:- Input any number and display sum of its digit but according to given format

For e.g. if number is 14568 then Output will be

$$[1 + 4 + 5 + 6 + 8 = 24]$$

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Question 11:- Input any number and add 1 to its digit.

For e.g. if number is 12391 and after adding 1 to its digit then answer will be 23402

Question 12:- Input a number and check it is Niven or Harshad number or not.

Niven or harshad Number:- A number that is divisible by sum of its digit.

For e.g. 21, 111 and 153 are example of Niven Number.

Question 13:- Input a number and check it is Krishnamurthy number or not.

Krishnamurthy Number:- A number whose sum of the factorial of digits is equal to the number itself.

For e.g. $145 = 1! + 4! + 5!$

Question 14:- Input a number and check number is a Duck Number or not.

Duck Number:- A number which contain 0 as a digit.

Question 15:- Input a decimal number and convert into Octal Number.

For e.g. If Number is 79 and its Octal Equivalent is 117

Question 16:- Input a Octal Number and convert into Decimal Number.

For e.g. If Octal Number is 745 and its decimal equivalent is 485