Q 1. Checking if a given year is leap year or not?

Q 2. Ques. Write a code to check whether no is prime or not. Condition use function check() to find whether entered no is positive or negative ,if negative then enter the no, And if yes pas no as a parameter to prime() and check wheth er no is prime or not?

Whether the number is positive or not, if it is negative then print the message □ please enter the positive number □

It is positive then call the function prime and check whether the take positive number is prime or not.

Q 3. Number Series with a Twist □ 1

Find the 15th term of the series?

0,0,7,6,14,12,21,18, 28

Q 4. Number Series with a Twist 2

Consider the following series: 1, 1, 2, 3, 4, 9, 8, 27, 16, 81, 32, 243, 64, 729, 128, 2187 □

This series is a mixture of 2 series □ all the odd terms in this series form a geometric series and all the even term s form yet another geometric series. Write a program to find the Nth term in the series.

The value N in a positive integer that should be read from STDIN. The Nth term that is calculated by the program should be written to STDOUT. Other than value of n th term,no other character / string or message should be writte n to STDOUT. For example , if N=16, the 16th term in the series is 2187, so only value 2187 should be printed to S TDOUT.

You can assume that N will not exceed 30.

Q 5. Number Series with a Twist 3

Consider the below series :

0, 0, 2, 1, 4, 2, 6, 3, 8, 4, 10, 5, 12, 6, 14, 7, 16, 8

This series is a mixture of 2 series all the odd terms in this series form even numbers in ascending order and ever y even terms is derived from the previous term using the formula (x/2)

Write a program to find the nth term in this series.

The value n in a positive integer that should be read from STDIN the nth term that is calculated by the program s hould be written to STDOUT. Other than the value of the nth term no other characters /strings or message should be written to STDOUT.

For example if n=10,the 10 th term in the series is to be derived from the 9th term in the series. The 9th term is 8 so the 10th term is (8/2)=4. Only the value 4 should be printed to STDOUT.

You can assume that the n will not exceed 20,000.

Q 6. String with a Twist

1. The program will recieve 3 English words inputs from STDIN
    1.These three words will be read one at a time, in three separate line
    2.The first word should be changed like all vowels should be replaced by %
    3.The second word should be changed like all consonants should be replaced by #
    4.The third word should be changed like all char should be converted to upper case
    5.Then concatenate the three words and print them

Other than these concatenated word, no other characters/string should or message should be written to STDOUT

For example if you print how are you then output should be h%wa#eYOU.

You can assume that input of each word will not exceed more than 5 chars

Q 7. Addition of two numbers a Twist

Using a method, pass two variables and find the sum of two numbers.

Test case:

Number 1 □ 20

Number 2 □ 20.38

Sum = 40.38

There were a total of 4 test cases. Once you compile 3 of them will be shown to you and 1 will be a hidden one. You have to display error message if numbers are not numeric.

Q 8. Consider the below series :

0, 0, 2, 1, 4, 2, 6, 3, 8, 4, 10, 5, 12, 6, 14, 7, 16, 8

This series is a mixture of 2 series all the odd terms in this series form even numbers in ascending order and ever y even terms is derived from the previous term using the formula (x/2)

Write a program to find the nth term in this series.

The value n in a positive integer that should be read from STDIN the nth term that is calculated by the program s hould be written to STDOUT. Other than the value of the nth term no other characters /strings or message should be written to STDOUT.

For example if n=10,the 10 th term in the series is to be derived from the 9th term in the series. The 9th term is 8 so the 10th term is (8/2)=4. Only the value 4 should be printed to STDOUT.

You can assume that the n will not exceed 20,000.

Q 9. Sweet Seventeen Problem Statement

Given a maximum of four digit to the base 17 (10 □ A, 11 □ B, 12 □ C, 13 □ D □ 16 □ G} as input, output i ts decimal value.

Case 1

Input □ 1A

Expected Output □ 27

Case 2

Input □ 23GF

Expected Output □ 10980

Q 10. Given a maximum of 100 digit numbers as input, find the difference between the sum of odd and even positio n digits

Case 1

Input: 4567

Expected Output: 2

Explanation : Odd positions are 4 and 6 as they are pos: 1 and pos: 3, both have sum 10. Similarly, 5 and 7 are at even positions pos: 2 and pos: 4 with sum 12. Thus, difference is 12 □ 10 = 2