CodeChef CGC Chapter

Weekly-Challenges

Week 2

Problem -1   VOWELTB

Problem:
Tell whether given character is vowel or consonant.

Solution:
Check the given character is vowel by comparing with all vowel character.

Pseudo Code

Input character char
If char == 'A' or char=='E' or char=='I' or char=='O' or char=='U'

Time Complexity

O(1)

Space Complexity

O(1)

Problem -2   TWONMS

Problem:
You have to calculate the integer division of the maximum number among updated Alice's number and updated Bob's number by the minimum number of the two.

Trick:
If n is odd then update c=a*2 else c = a and d = b, apply the solution.

Solution:
Calculate max(c,d) / min(c,d)

Pseudo Code

Get A, B, N

If N is odd

    C := A*2

Else

    C := A

D = B

Output max(C, D) / min(C, D)

Time Complexity

O(1)

Space Complexity

O(1)

Problem -3   TWOVSTEN

Problem:
You have to find the smallest number of turns necessary to make X divisible by 10 and print it, if not possible then print -1.

Solution:
If number is divisible by 10 print 0 if divisible by 5 print 1 else -1.

Pseudo Code

Input integer X
If X%10 == 0
      print(0)
Else if X%5 == 0
      print(1)
Else
      print(-1)

Time Complexity

O(1)

Space Complexity

O(1)

Problem -4   TWOSTR

Problem:

You have to find whether the strings X and Y can be matched or not on condition that for each index on both string character must be same.

Solution:

For each index check whether the character on both string is equal, or either one or both have '?' symbol if any of condition violates print 'No' else 'Yes'.

Pseudo Code

Input string str1 and str2

Len = length of str1

Loop i from 0, to len-1

      If i != '?' and j != '?' and i != j

          Output "No"

          Break loop

If condition in loop not violates

      Output "Yes"

Time Complexity

O(n)

Space Complexity

O(n)