1. Check whether all english alphabets are present in the given sentence or not

I/P: abc defGhi JklmnOP QRStuv wxyz
O/P: True

I/P: abc defGhi JklmnOP QRStuv
O/P: False

2. Find the strength of the given password string based on the conditions Four rules were given based on the type and no. of characters in the string.
Weak – only Rule 1 is satisfied or Rule 1 is not satisfied, Medium – Two rules are satisfied
Good – Three rules satisfied, Strong – All Four rules satisfied

I/P: Qw!1 O/P: Weak
I/P: Qwertyuiop O/P: Medium
I/P: QwertY123 O/P: Good
I/P: Qwerty@123 O/P: Strong

3. Given two strings, find the first occurrence of all characters of second string in the first string and print the characters between the least and the highest index

I/P: ZOHOCORPORATION PORT
O/P: OHOCORPORAT

Explanation: The index of P in first string is 7, O is 1, R is 6 and T is 11. The largest range is 1 – 11. So print the characters of the first string in this index range i.e. OHOCORPORAT.

4. Given a matrix print the largest of the sums of the two triangles split by diagonal from top right to bottom left

I/P: 3 3
1 2 3
4 5 6
7 8 9

O/P: 38

5. Evaluate the expression and sort and print the output. Getting the input is the tricky part

Input:
Number of input : 4
2*3
2^2^2
35
3*1
Output:
3*1
2*3
2^2^2
35

6. Given a 6 blocks, of different height h1, …, h6 . Make 2 towers using 3 Blocks for each tower in desired height h1, h2. Print the blocks to be used in ascending order

Input:
1 2 5 4 3 6
height of tower: 6 15
Output :
1 2 3 & 4 5 6

7. Given a number, print all the code that can be formed with z={a=1, .., z=26}.

Input : 1123
{1, 1, 2, 3} = aabc
{11, 2, 3} = kbc
{1, 1, 23} = aaw
{11, 23} = kw

8. Given a String with or without special characters find if it is Palindrome or Not.. No splitting of array must be done or No additional spaces must be used for storing the array..

Eg: RACE CAR

Eg: I DID, DID I ?

9. Given an array of integers of size **n**. Convert the array in such a way that if next valid number is same as current number, double its value and replace the next number with 0. After the modification, rearrange the array such that all 0's are shifted to the end.

Input : arr[] = {2, 2, 0, 4, 0, 8}
Output : 4 4 8 0 0 0

Input : arr[] = {0, 2, 2, 2, 0, 6, 6, 0, 0, 8}
Output : 4 2 12 8 0 0 0 0 0 0

10. Given an array A[] and a number x, check for pair in A[] with sum as x.

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Eg : Input {1, 2, 4, 3, 5, 6}
SUM : 5
Output : 2 (1, 4) & (2, 3)
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