CODING CHALLENGE

Instructions

- Complete each coding challenge in the language of your choice. Submissions should include the code, proper commenting of logic and approach (and major resources or instructions used to solve), and any instructions to properly test the submission with test data sets.

Question #1

Create an encryption algorithm which converts given string to desired number.

For example:

A -> 1
B -> 2
C -> 3
...
Z -> 26
AA -> 27
AB -> 28
AC -> 29
AD -> 30
…
AZ -> 52
BA -> 53
BB -> 54
BC -> 55
…

Example 1:

Input: "A"
Output: 1

Example 2:

```
Input: "AB"
Output: 28
```

Example 3:

```
Input: "ZY"
Output: 701
```

Question #2

Given a matrix, with variable elements in each row.

Find the least sum from top to bottom.

For example, given the following matrix

```
[
   [4 ] ,
   [1 , 4],
  [10,9 , 70],
 [4,1 , 83,37]
]
```

The least sum from top to bottom is `1 5` (i.e., 4 + 1 + 9 + 1 = 15).

Note:

Bonus point if you are able to do this using only *O* (*n*) extra space, where *n* is the total number of rows in the triangle.