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### Question - 1

#### Multiples of 3 and 5

If we list all the natural numbers below 10 that are multiples of 3 or 5, we get 3, 5, 6 and 9. The sum of these multiples is 23. Write a function `getSum()` to return the sum of all the multiples of 3 or 5 below a given number passed as parameter to your function.

Note: The function stub is already available to you - you only have to add the implementation within the stub.

### Question - 2

#### Sum of two numbers

You are given two lists representing one non-negative number each. The digits of the number represented by the list is stored in reverse order in the list.

Write a function to add the numbers and return it as a list. The arguments to your function will be the aforementioned two lists.

For example,

Input: [2, 4, 6], [8, 0, 9]

Output: [0, 5, 5, 1]

Explanation:  $642 + 908 = 1550$

### Question - 3

#### Matching brackets

Given a string containing only the characters '(', ')', '{', '}', '[', ']' and '^', find out if the input string is valid.

The input string is valid if:

- Open brackets are closed by the same type of brackets.
- Open brackets are closed in the correct order.

For example,

Input: "{}"

Output: true

Input: "{[]}"

Output: true

Input: "{}[]"

Output: true

Input: "{}[]"

Output: false

Implement a function `isValid()` that accepts the aforementioned string and returns the total number of brackets when the string is valid and -1 when it is not.

## Question - 4

### Simplify path

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Given an absolute file path (unix / linux style), reduce it.

For example,

Input: `"/root/"`

Output: `"/root"`

Input: `"/x/. /y/. /z/"`

Output: `"/x/z"`

`.` represents the current directory and `..` represents parent directory.  
Consider `"/. /"` as `"/"` and `"/x//y/"` as `"/x/y"`.

Write a function `reducePath()` that accepts a path string and return the reduced path.

## Question - 5

### Valid Palindrome

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Given a string, figure out if it is a palindrome considering only alphanumeric characters and ignoring cases.

For example,

Input: `"A man, a plan, a canal: Panama"`

Output: true

Input: `"race a car"`

Output: false

Write a function `isPalindrome()` that returns the total length of the original input string when it is a palindrome according to the above mentioned rules or -1 when it is not.