## **Evaluation of Postfix Expression**

Given string **S** representing a postfix expression, the task is to evaluate the expression and find the final value. Operators will only include the basic arithmetic operators like \*, /, + and -.

### Example 1:

Input: S = "231\*+9-"

Output: -4 Explanation:

After solving the given expression,

we have -4 as result.

#### Example 2:

**Input**: S = "123+\*8-"

Output: -3 Explanation:

After solving the given postfix expression, we have -3 as result.

#### Your Task:

You do not need to read input or print anything. Complete the function

\*\*evaluatePostfixExpression()\*\*that takes the string S denoting the expression as input parameter and returns the evaluated value.

# **Expected Time Complexity**: O(|S|) **Expected Auixilliary Space**: O(|S|)

```
def EvaluatePostfix(self,S):
    #code here
    stack = []
    for ele in S:
        if ele not in {'*', '/', '+','-'}:
            stack.append(int(ele))
        else:
            temp = self.eval(stack.pop(),stack.pop(),ele)
            stack.append(temp)
    return stack[-1]

def eval(self,v2,v1,opr):
    if opr=="+":
```

```
return v1+v2
elif opr=="-":
    return v1-v2
elif opr=='*':
    return v1*v2
else:
    return v1//v2
```