EVALUATING A PREFIX EXPRESSION

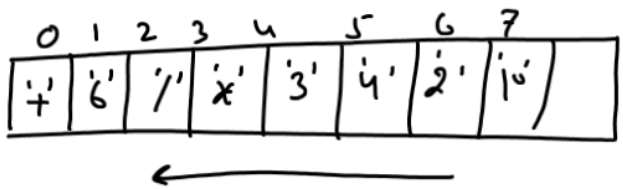
6 + 3 * 4 / 2

6 + * 34 / 2

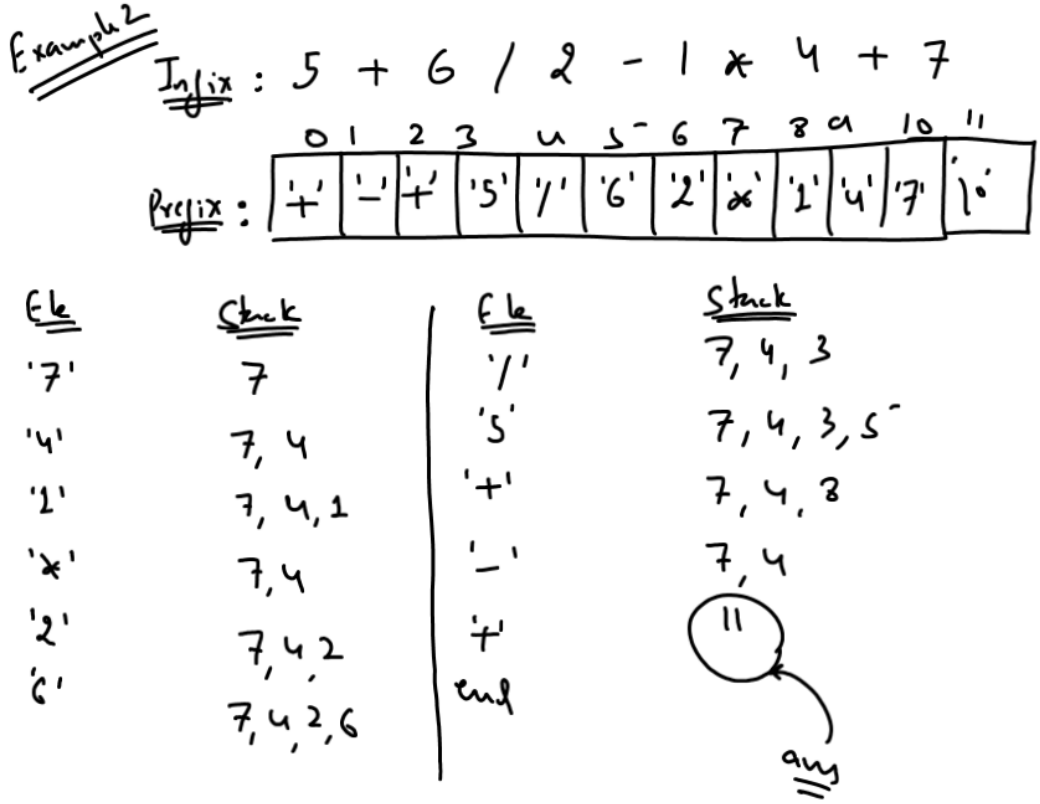
6 + / * 342

+ 6 / * 3 4 2

Example 1



Ele	Stack
'2'	2
'4'	2, 4
'3'	2, 4, 3
'*'	2, 12
'/'	6
'6'	6, 6
'+'	12 ← Ans
end	



Algorithm For Evaluating A Prefix Expression

1. Scan the given PREFIX expression from RIGHT to LEFT , one character at a time.

2. Check whether it is an OPERAND or OPERATOR.

3. If it is an OPERAND then PUSH it in the STACK and goto STEP 5.

4. If it is an operator then:

   a. POP the top 2 elements from the STACK
   b. Apply the operator on them
   c. Push back the result in the Stack

5. Repeat the above steps until the PREFIX expression finishes.

6. POP and return the last and only remaining element from the STACK which is the answer of the expression