

LAB:3 INFIX TO POSTFIX

Q. WAP to convert a given valid parenthesized infix arithmetic expression to postfix expression. The expression consists of single character operands and binary operators + (plus), - (minus), * (multiply), and / (divide).

A. ² Create a stack s.
 for i=0 to length(exp)-1.
 {
 if exp[i] is operand
 res = res + exp[i]
 else if exp[i] is operator
 { while (!s.empty() && has higher prec (s.top(), exp[i]))
 {
 res = res + s.top()
 s.pop()
 }
 s.push(exp[i])
 }
 else if Opening Parenthesis (exp[i])
 s.push(exp[i])
 else if Closing Parenthesis (exp[i])
 while (!s.empty() && ! is open par. s(top))
 {
 res = res + s.top()
 s.pop()
 }
 s.pop()
 while (!s.empty())
 {
 res = res + s.top()
 }


```
s.pop()
```

```
}
```

```
return res
```

```
}
```