

## Infix to Postfix ; 5-10-2020

Infix to Postfix (exp)

{

create a stack S

for  $i \leftarrow 0$  to  $\text{length}(\text{exp}) - 1$

{

if  $\text{exp}[i]$  is operand

$\text{res} \leftarrow \text{res} + \text{exp}[i]$

else if  $\text{exp}[i]$  is operator

{

while ( $!S.\text{empty}()$  && HasHigher  
Precedence ( $S.\text{top}$ ,  $\text{exp}[i]$ ))

{

$\text{res} \leftarrow \text{res} + S.\text{top}()$

```
S.pop()
}
S.push(exp[i])
}
else if IsOpeningParanthesis(exp[i])
    S.push(exp[i])
elseif IsClosingParanthesis(exp[i])
{
    while(!S.empty && !S.IsOpeningParanthesis
        (S.top()))
    {
        res ← res + S.top()
        S.pop()
    }
    S.pop()
}
}
while (!S.empty())
{
    res ← res + S.top()
    S.pop()
}
return res
}
```