

Infix to Postfix

eg $(a-b/c)^*(a/k-l)$

sol:

$$\left(\underset{1}{(} \underset{2}{a} \underset{3}{-} \underset{4}{b} \underset{5}{/} \underset{6}{c} \underset{7}{)} \underset{8}{*} \underset{9}{(} \underset{10}{a} \underset{11}{/} \underset{12}{k} \underset{13}{-} \underset{14}{l} \underset{15}{)} \underset{16}{)} \underset{17}{}$$

<u>S.R</u>	Symbol	Stack	Infix to Postfix
1	((
2	(((
3	a	((a
4	-	((-	a
5	b	((-	ab
6	/	((-/	ab
7	c	((-/	abc
8)	(abc/-
9	*	(*	abc/-
10	((*(abc/-
11	a	(*(abc/-a
12	/	(*(/	abc/-a k
13	k	(*(/	abc/-ak
14	-	(*(-	abc/-ak/
15	l	(*(-	abc/-ak/l
16)	(*	abc/-ak/l-
17)		abc/-ak/l-*

Steps to code

- ① Declare Precedence order ^{eg} ($\wedge > / > * > + > -$)
- ② Get operands and push them into stack
- ③ '(' = push it into stack
- ④ During ')' = push everything till '('.
- ⑤ When operators comes, check their precedence and according to that push operators in stack.
- ⑥ Update and Pop step 5 and then pop.