

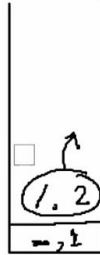
Infix To Postfix Using Stack

$x - y / z - k * d$

↓
Infix

Postfix Expression :
 $x y z / -$

*/	2
+,-	1



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$x - y / z - k * d$

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Infix

Postfix Expression :
 $x y z / -$

*/	2
+,-	1



Algorithms & Data Structures > Infix, Postfix, Prefix ▾

Postfix Expression :
 $xyz / - kd * -$

*1	2
+,-	1

Algorithms & Data Structures > Infix, Postfix, Prefix

Postfix Expression : $xyz/-kd*-$

*1	2
+,-	1

xyz/-kd*- ✓

$$\begin{array}{r} 2, 2 \\ - 1 \\ \hline 1, 2 \\ - 1 \\ \hline 1 \end{array}$$

Stack

- Write (print) expression in case of operands.
- In case of operator, push it into stack if it is of higher precedence than the previous operator is.
- In case of order or precedence is same or less than previous precedence, pop from the stack
- Finally when the stack is empty, pop each remaining operator one by one

Infix To Postfix Using Stack

$$x - y / z - k * d$$

Infix

$$\begin{aligned} & ((x - (y / z)) - (k * d)) \\ & (x - [y / z]) - [k * d] \\ & [x y z / -] - [k * d] \\ & x y z / - k d * - \end{aligned}$$

Postfix Expression :

$$x y z / - k d * -$$

+	2
+	1



Stack

Postfix Expⁿ : $x y z * + k -$

Ex: $x + y * z - k$

$$(x + (y * z)) - k$$

$$(x + [y z *]) - k$$

$$[x y z * +] - k$$

$$[x y z * + k -] \rightarrow \text{Postfix Exp}^n$$

OneNote interface showing the conversion of $x * y * z$ to prefix and postfix.

② Postfix

SL \rightarrow Parenthesize the expⁿ

$$(x - (y * z))$$

$$(x - [y z *])$$

$$x y z * -$$

PE: $x y z * -$

Quick Quiz: Convert th to Postfix