

Example: Evaluation of arithmetic expressions (Postfix notation)

Infix

A + B

$(x - y)/(u + v)$

$(x - y) (u + v) /$

$x y - u v + /$

Postfix

A B +

INFIX

$a + b$

$(x - y + z)$

$(x - y - z)/(u + v)$

POSTFIX

$a b +$

$x y - z +$

$x y - z - u v + /$

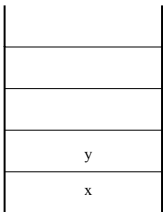
In general:

$A \text{ operator } B$

$A \ B \ \text{operator}$

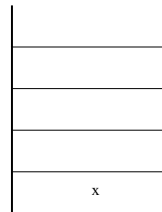
$x y - z - u v + /$

x: push(x)
y: push(y)



$x y - z - u v + /$

x: push(x)
y: push(y)
- : pop() (we get y)

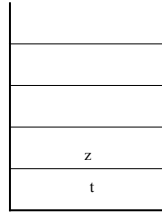


$x\ y - z - u\ v + /$



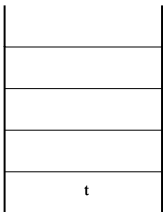
x: push(x)
y: push(y)
- : pop() (we get y) $\searrow$
pop() (we get ~~x~~) $\rightarrow$ $\boxed{x - y} = t$

$x\ y - z - u\ v + /$



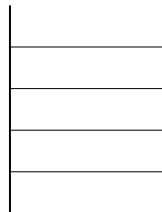
x: push(x)
y: push(y)
- : pop() (we get y) $\searrow$
pop() (we get ~~x~~) $\rightarrow$ $\boxed{x - y} = t$
push(t)
z: push(z)

$x\ y - z - u\ v + /$



x: push(x)
y: push(y)
- : pop() (we get y) $\searrow$
pop() (we get ~~x~~) $\rightarrow$ $\boxed{x - y} = t$
push(t)
z: push(z)
- : pop() (we get z)

$x\ y - z - u\ v + /$



x: push(x)
y: push(y)
- : pop() (we get y) $\searrow$
pop() (we get ~~x~~) $\rightarrow$ $\boxed{x - y} = t$
push(t)
z: push(z)
- : pop() (we get z)
pop() (we get t)

