

Expression Worksheet

INFIX/POSTFIX/PREFIX - Convert the following infix expressions to prefix and postfix form. Assume the normal Java operators and precedence rules. Given $a=2$, $b=3$, $c=5$, $d=7$, and $e=11$, evaluate the postfix expressions of questions a) b) c) and d) using a stack. Draw the intermediate stacks. Check your answer by evaluating the infix expression.

a) $a * b$

PREFIX:

POSTFIX:

Evaluate Postfix using stack

Infix:

b) $a - b - c$

PREFIX:

POSTFIX:

Evaluate Postfix using stack

Infix:

c) $(a * b) + c$

PREFIX:

POSTFIX:

Evaluate Postfix using stack

Infix:

d) $a * b - c / d + 3$

PREFIX:

POSTFIX:

Evaluate Postfix using stack

Infix:

e) $a + 4 * (e + d / 2)$

PREFIX:

POSTFIX:

Evaluate Postfix using stack

Infix:

f) $a - b - (c - d)$

PREFIX:

POSTFIX:

Evaluate Postfix using stack

Infix: