

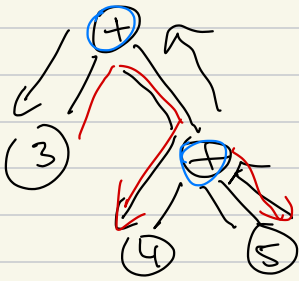
CS 621-02 RISC-V ASM Codegen 2026-03-12

expr

$$3 + (4 + 5)$$

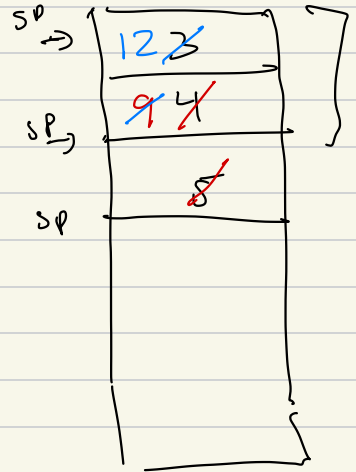
$$3 + 9$$

$$12$$



=>

→ push 3
 push 4
 push 5
 → add2
add2



push 3
 [addi sp, sp, -4
 li t0, 3
 sw t0, (sp)]
 push 4
 [addi sp, sp, -4
 li t0, 4
 sw t0, (sp)]
 push 5
 [addi sp, sp, -4
 li t0, 5
 sw t0, (sp)]

lw t0, (sp)
 addi sp, sp, 4
 lw t1, (sp)
 add t0, t0, t1
 sw t0, (sp)
 lw t0, (sp)
 addi sp, sp, 4
 lw t1, (sp)
 add t0, t0, t1
 sw t0, (sp)

add2

./ntlang -e "3+(4+5)" -c foo > foo.s

gcc -o foo foo.s

./foo

./ntlang -e "a0+(a1+a2)" -c foo > foo.s

gcc -o foo foo.s

./foo 1 2 3

6

./ntlang -e "a0+a1" -a0 3 -a1 4