CS 631-01 RISC-V Code Generation

What is the ntlang -c output?

    PREAMBLE
    FUNC CODE

    ___

PREAMBLE

        args parsing
        calls x = codegen _func _s (a0, a1, ..., a7)
        printf ("%d (0x%0X)", x);
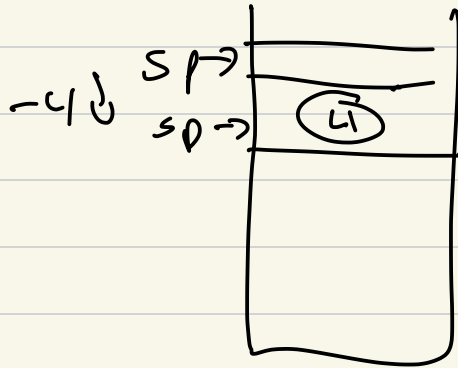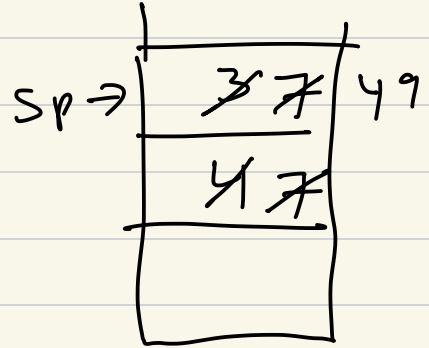
FUNC
    → codegen func_s:
        ‗
        ‗
        ‗
        ‗

        ret

generated
from
parse tree

stack machine code

$(3 + 4) * 7$

push 3
push 4
add
push 7
mul

sp→ | 3̶ 7̶ | 49
      | 4̶ 7̶ |

−4↓ sp→
    sp→ (4)

$3 + 4$

push 3
push 4
add   t0 = 3
        t1 = 4
add t0, t0, t1

$3 << 4$

push 3
push 4
   left shift
        t0 = 3
        t1 = 4
sll t0, t0, t1