

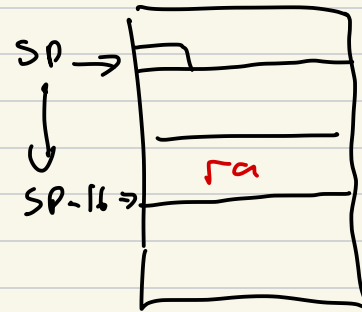
CS315-01 RISC-V Assembly 5

Complex Functions / Recursion

Function calls

caller-saved regs: $a0-a7, t0-t6, ra$

callee-saved reg: $s0-s11, sp$



foo:

`addi sp, sp, -16`

`sd ra, (sp)`

`# save s regs on stack`

bar

`# save caller-saved reg`

`call bar`

`LA = PC+4 # restore
caller-saved reg`

`add a0, a0, a1`

`;`
`;`
`;`

`ret`

`# restore s regs from stack`

`ld ra, (sp)`

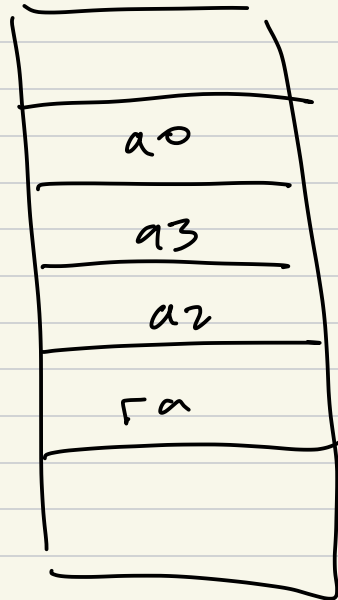
`addi sp, sp, 16`

`ret`

add4f.s

Stack

Sp
(24)
(16)
(8)
(0)
Sp-32



recursion

factrec(4)

