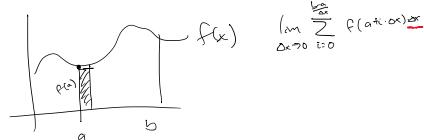


$$x = a + b \cdot x$$



Function Calls: C-to-LC3

parameters } automatic
(local variables) allocation

Runtime stack

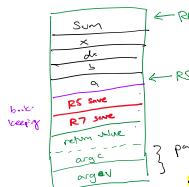


2 Register

R6 - stack pointer
in LC3 top of word position
RS - frame pointer
... bottommost local variable



$$a = \& b + c \& d - f \% g + h \% i;$$

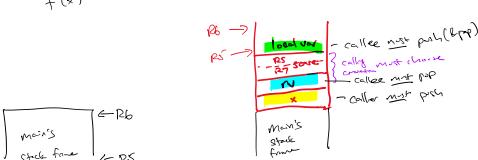


$$\begin{aligned} &\text{Sum} = \text{Sum} + 1 \\ &\text{LDR R0, RS}, \#-4 \\ &\text{ADD R0, R0}, \#1 \end{aligned}$$

Symbol table

Symbol	Type	Scope	Loc
sum	lv.	main	RS - 4
x	lv.	main	RS - 3
dx	lv.	main	RS - 2
b	param	main	RS + 4
a	param	main	RS + 5
argc	param	main	RS + 6
argn	param	main	RS + 7

$f(x)$



C-to-LC3

parameters pushed by the caller
everything else by the callee
l-l v. local var. for the callee

local v. --> to lv. " caller
lv & form " "

