Scratch

Stack

main

variables go here.

Box goes on the stack for each function call.

greet

greet

New box for each call to the same function

Printed output

Hello!
Hello!

Scratch	Stach
$z = z + g(z)$ $= 10 + 13$ $= 23$ $s + z = 7 + 3 = 10$	**Main** $z = \cancel{10}\ 23$

parameters (inputs) are variables too!

return value

g) $s = 7$ $z = 3$ — 10

g) $s = 10$ $z = 3$ — 13

Printed output

In main
23

Scratch	Stack
	main x = ~~7~~ 31
x + 1 = 6 + 1 = 7	double x = ~~8~~ 6 7
	doubles x = ~~7~~ 14 15
	doubles x = ~~15~~ 30 31

Printed output

7
31