$[\![entry]\!] = \{\}$

$[\![x = io.read()]\!] = \{x = io.read()\}$

$[\![while\ x > 2]\!] = \{x = io.read()\}$

$[\![y = x/2]\!] = \{x = io.read(), y = x/2\}$

$[\![if\ y < 6]\!] = \{x = io.read(), y = x/2\}$

$[\![x = x + y]\!] = \{x = x + y, y = x/2\}$

$[\![z = x + 2]\!] = \{x = io.read(), x = x + y, y = x/2, z = x + 2\}$

$[\![if\ z > 3]\!] = \{x = io.read(), x = x + y, y = x/2, z = x + 2\}$

$[\![x = x/2]\!] = \{x = x/2, y = x/2, z = x + 2\}$

$[\![z = z + 10]\!] = \{x = io.read(), x = x + y, x = x/2, y = x/2, z = x + 10\}$

$[\![print(x)]\!] = \{x = io.read(), x = x + y, x = x/2, y = x/2, z = x + 10\}$

$[\![exit]\!] = \{x = io.read(), x = x + y, x = x/2, y = x/2, z = x + 10\}$