

(a)

11 $i_0 = 0$ 12 $s_0 = 0$  $i_1 = \phi(i_0, i_2)$ $s_1 = \phi(s_0, s_2)$

13

 $(i_1 < 100)?$ $(\perp, i_2) = \sigma(i_1)$ return s_1

14

 $i_2 = i_2 + 1$ 

15

 $s_2 = s_1 + i_2$ 

(b)

 $[i_0] = [0, 0]$ $[i_1] = [0, 100]$ $[i_2] = [0, 99]$ $[i_2] = [1, 100]$ $[s_0] = [0, 0]$ $[s_1] = [0, +\infty]$ $[s_2] = [1, +\infty]$