```
(b) k_0 = 0
(a)
                                      k_1 = \phi(k_0, k_2)
    k = 0
    while k < 100:
                                       (k_1 < 100)?
                                           i<sub>0</sub> = 0
       i = 0
       i = k
                                           j_0 = k_1
       while i < j:
                                      i = i + 1
       j = j - 1
                                     j_1 = \phi(j_0, j_2)
                                     (i_1 < j_1)?
       k = k + 1
                             i_2 = i_1 + 1
i_2 = i_1 + 1
k_2 = k_1 + 1
                             j_{2} = j_{1} - 1
(c) k_0 = 0
                            (d) I[i_0] = [0, 0]
                                  I[i_1] = [0, +\infty]
     k_1 = \phi (k_0, k_2)
    i_0 = 0
                                 I[i_2] = [1, +\infty]
    j_0 = k_1
                                 I[j_0] = [0, +\infty]
    i_1 = \phi(i_0, i_2)
                                 I[\dot{\gamma}_1] = [-\infty, +\infty]
    j_1 = \phi(j_0, j_2)
                               I[\dot{j}_2] = [-\infty, +\infty]
    i_2 = i_1 + 1
                                I[k_0] = [0, 0]
    j_2 = j_1 - 1
                               I[k_1] = [0, +\infty]
    k_2 = k_1 + 1
                                  I[k_2] = [1, +\infty]
```