

Problem 1

Initial State

(worker w1 f0)
(worker w2 f2)
(worker w3 f5)
(worker w4 f7)
(slow l1 f0)
(slow l2 f0)
(fast l3 f0)
(fast l4 f0)
(move_one f0 f1)
(move_one f1 f2)
(move_one f2 f3)
(move_one f3 f4)
(move_one f4 f5)
(move_one f5 f6)
(move_one f6 f7)
(move_one f7 f8)
(move_one f8 f9)
(move_one f9 f10)
(move_one f10 f9)
(move_one f9 f8)
(move_one f8 f7)
(move_one f7 f6)
(move_one f6 f5)
(move_one f5 f4)
(move_one f4 f3)
(move_one f3 f2)
(move_one f2 f1)
(move_one f1 f0)
(move_ten f0 f10)
(move_ten f10 f0)

Final State

(worker w1 f10)
(worker w2 f10)
(worker w3 f9)
(worker w4 f9)

Trace

(get_in_slow l2 w1 f0)
(move_one_floor l2 f0 f1)
(move_one_floor l2 f1 f2)
(get_in_slow l2 w2 f2)
(move_one_floor l2 f2 f3)
(move_one_floor l2 f3 f4)
(move_one_floor l2 f4 f5)
(get_in_slow l2 w3 f5)
(move_one_floor l2 f5 f6)
(move_one_floor l2 f6 f7)
(get_in_slow l2 w4 f7)
(move_one_floor l2 f7 f8)
(move_one_floor l2 f8 f9)
(get_out_slow l2 w3 f9)
(get_out_slow l2 w4 f9)
(move_one_floor l2 f9 f10)
(get_out_slow l2 w1 f10)
(get_out_slow l2 w2 f10)