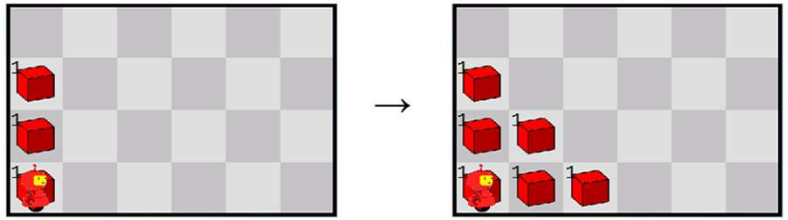
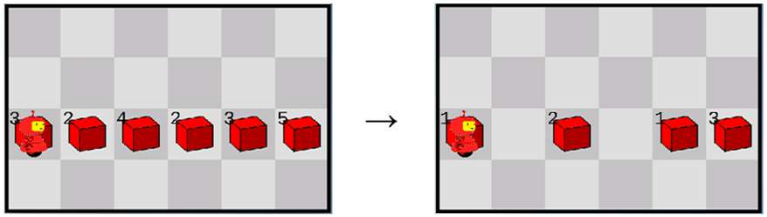

PA 1b
Karel Continues to Explore

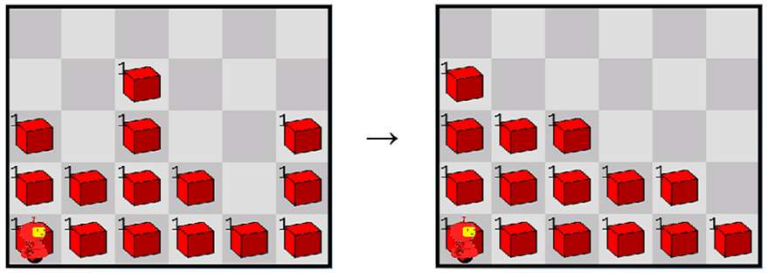
[A] sail.c



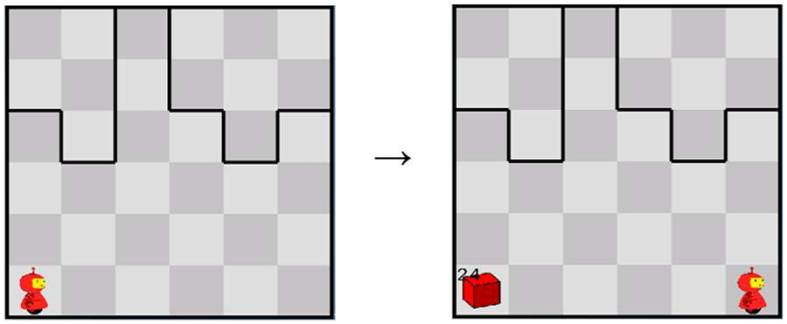
[B] level.c



[C] sort.c



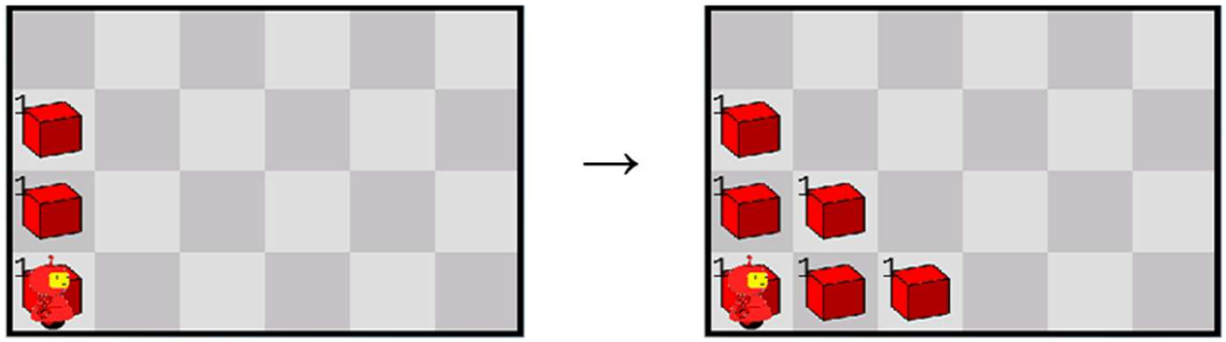
[D] measure.c



PA 1b

sail.c

DISCUSSION



```
MOVE_TO_END:
    GO_TO_WALL_OR_OPEN SPOT
    GO_BACK_IF_OPEN_SPOT
```

```
MAIN:
   CLIMB_POLE
   WHILE (NOT DONE)
        MOVE_TO_END
        GO_TO_NEXT_ROW_END
        DEPOSIT_ITEMS
```

```
CLIMB_POLE:
    TURN_LEFT
    MOVE_TO_END
    TURN_RIGHT
```

>>

```
void go_to_wall_or_open_spot() {
    while (item_present() && !wall_in_front())
        move();
}

void go_back_if_open_spot() {
    if (!item_present()) {
        turn_around();
        move();
        turn_around();
    }
}

void move_to_end() {
    go_to_wall_or_open_spot();
    go_back_if_open_spot()
}

void climb_pole() {
    turn_left();
    move_to_end();
    turn_right();
}

int main() {
    karel_setup("settings/settings01_wall.json");
    climb_pole();
    while (!wall_to_right()) {
          move_to_end();
          go_to_next_row_end();
          deposit_items();
    }
    turn_off();
}
```

DISCUSSION

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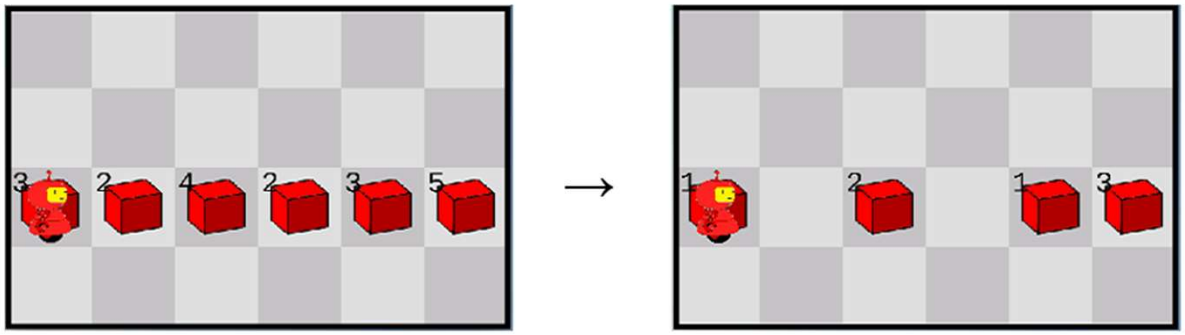
PA 1b

level.c

DISCUSSION




```
CHECK_ROW_AND_TURN_OFF:
    MOVE_IF_POSSIBLE_AND_ITEM
    IF (NO ITEM)
         GO_TO_WEST_WALL
         TURN_OFF
```

```
MAIN:
   WHILE (NOT DONE)
        ELIMINATE_ROW
```

```
ELIMINATE_ROW:
    CHECK_ROW_AND_TURN_OFF
    COLLECT_ITEMS
```

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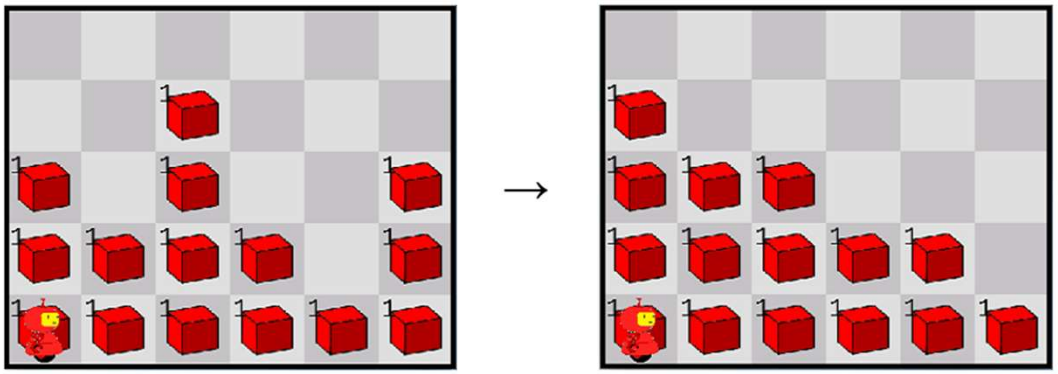
PA 1b

sort.c

DISCUSSION



```
MAIN:
   SORT_ROW
   WHILE (NOT DONE)
        GO_TO_NEXT_ROW
        SORT_ROW
```

```
SORT_ROW:
    COLLECT_ALL_ITEMS
    GO_BACK
    DEPOSIT_ITEMS
    GO_BACK
```

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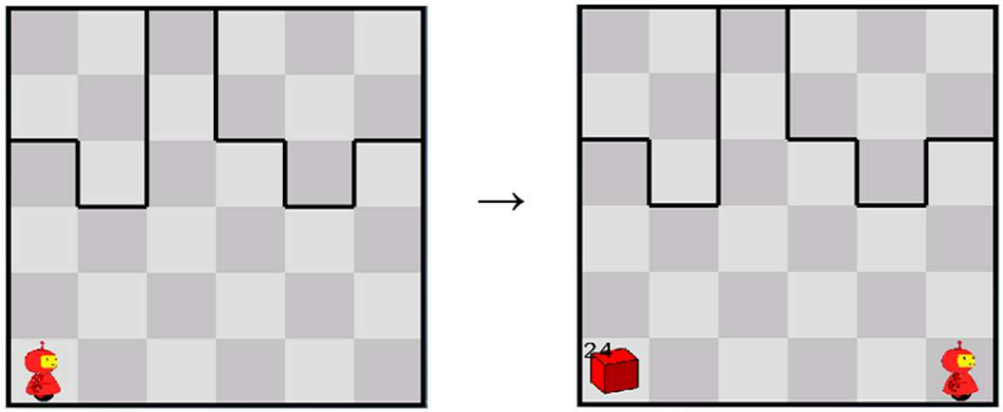
PA 1b

measure.c

DISCUSSION




```
MAIN:
    PROCESS_COLUMN
    WHILE (NOT DONE)
        MOVE
        PROCESS_COLUMN
    COLLECT_ALL_ITEMS
    MOVE_TO_EAST_WALL
```

```
COLLECT_ALL_ITEMS:
    WHILE (NOT DONE)
        GO_TO_NEXT_ITEM
        TAKE_ITEM
        MOVE_TO_WALL
        PUT_ITEM
        TURNAROUND_AND_GO_TO_WALL
```

```
PROCESS_COLUMN:
    DEPOSIT_ITEMS
    COLLECT_ALL_ITEMS
```

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