

Project Task 4: Establish Game Rules and Game between Two Random Players

By Carrie Corcoran

This is the fifth task in my semester-long project of creating heuristic Mancala players. It contains functions to control game flow and a game played between two machines choosing moves randomly.

Code:

```
;-----Checks if one side of the  
board is empty
```

```
(defun empty-side (side)  
  (cond  
    ((eql side 'a)  
     (setf checking *side-A*)  
     )  
    (t  
     (setf checking *side-B*)  
     )  
  )  
  (recursive-empty-side checking 0)  
)
```

```
(defun recursive-empty-side (side pos)  
  (cond  
    ((= pos 5)  
     (= (get (nth 5 side) 'value) 0)  
     )  
    ((= (get (nth pos side) 'value) 0)  
     (recursive-empty-side side (+ 1 pos))  
     )  
    (t
```

```

        nil
    )
)

)

;-----Adds up remaining pieces on
given side
(defun remaining-pieces (side)
  (cond
    ((eql side 'a)
      (setf sum (+ (get 'a1 'value) (get 'a2 'value) (get 'a3
'value) (get 'a4 'value)
      (get 'a5 'value) (get 'a6 'value)))
      (setf (get 'AH 'value) (+ sum (get 'AH 'value))))
    )
    (t
      (setf sum (+ (get 'b1 'value) (get 'b2 'value) (get 'b3
'value) (get 'b4 'value)
      (get 'b5 'value) (get 'b6 'value)))
      (setf (get 'BH 'value) (+ sum (get 'BH 'value))))
    )
  )
)

```

```

;-----Runs game between 2 random
players
(defun random-game (verbose)
  (reset-board)
  (cond
    (verbose
      (draw-board)
    )
  )
  (random-game-turns 'a verbose)
  (remaining-pieces 'a)
  (remaining-pieces 'b)
  (format t "Final Score: ~%")
  (format t "Player A: ~A ~%" (AH))
  (format t "Player B: ~A ~%" (BH))
  (cond
    ((> (AH) (BH))
      (format t "Player A wins! ~%")
    )
    ((< (AH) (BH))
      (format t "Player B wins! ~%")
    )
    (t
      (format t "The game is a tie! ~%")
    )
  )
)
)

```

```

(defun random-game-turns (player verbose)
  (cond
    (verbose
      (format t "Player ~A's turn ~%" player)
    )
  )
  (random-move player verbose)
  (cond
    ((or (empty-side 'a) (empty-side 'b))
      t
    )
    ((eql player 'a)
      (random-game-turns 'b verbose)
    )
    (t
      (random-game-turns 'a verbose)
    )
  )
)

```

;Testing empty-side code

```

(defun empty-side-test ()
  (format t "Startup board: ~%" )
  (draw-board)
  (format t "Checking if Side A is empty: ~A ~%" (empty-side 'a))
  (format t "Clearing A side of board ~%" )
  (setf (get 'a1 'value) 0)
  (setf (get 'a2 'value) 0)
  (setf (get 'a3 'value) 0)
)

```

```

    (setf (get 'a4 'value) 0)
    (setf (get 'a5 'value) 0)
    (setf (get 'a6 'value) 0)
    (draw-board)
    (format t "Checking if Side A is empty: ~A ~%" (empty-side
'a))
)

;Testing remaining-pieces code
(defun remaining-pieces-test ()
  (format t "Startup board: ~%")
  (draw-board)
  (format t "Gathering remaining pieces from side A into mancala
~%")
  (remaining-pieces 'a)
  (format t "Stones in mancala: ~A ~%" (AH))
  (format t "Resetting and modifying board: ~%")
  (reset-board)
  (setf (get 'a4 'value) 0)
  (setf (get 'a3 'value) 1)
  (draw-board)
  (remaining-pieces 'a)
  (format t "Gathering remaining pieces from side A into mancala
~%")
  (format t "Stones in mancala: ~A ~%" (AH))
)

```

```
;Testing random-game code
(defun random-game-test ()
  (format t "Test with all moves displayed: ~%")
  (random-game t)
  (format t "Test with only results displayed: ~%")
  (random-game nil)
)
```

Demo:

```
[1]> (load "mancala-test.l")
;; Loading file mancala-test.l ...
;; Loading file mancala.l ...
;; Loaded file mancala.l
;; Loaded file mancala-test.l
T
[2]> (empty-side-test)
Startup board:
```

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
4	4	4	4	4	4	4	
0	—	—	—	—	—	—	
	—	—	—	—	—	—	0
4	4	4	4	4	4	4	
—	—	—	—	—	—	—	—
A1	A2	A3	A4	A5	A6	HA	

```
Checking if Side A is empty: NIL
Clearing A side of board
```

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
4	4	4	4	4	4	4	
0	—	—	—	—	—	—	
	—	—	—	—	—	—	0
0	0	0	0	0	0	0	
—	—	—	—	—	—	—	—
A1	A2	A3	A4	A5	A6	HA	

```
Checking if Side A is empty: T
NIL
```

[3]> (remaining-pieces-test)

Startup board:

	HB	B6	B5	B4	B3	B2	B1	
	—	—	—	—	—	—	—	
	4	4	4	4	4	4		
	0	—	—	—	—	—	—	
		—	—	—	—	—	0	
		0	0	0	0	0	0	
	—	—	—	—	—	—	—	
	—	A1	A2	A3	A4	A5	A6	HA

Gathering remaining pieces from side A into mancala

Stones in mancala: 0

Resetting and modifying board:

	HB	B6	B5	B4	B3	B2	B1	
	—	—	—	—	—	—	—	
	4	4	4	4	4	4		
	0	—	—	—	—	—	—	
		—	—	—	—	—	0	
		4	4	1	0	4	4	
	—	—	—	—	—	—	—	
	—	A1	A2	A3	A4	A5	A6	HA

Gathering remaining pieces from side A into mancala

Stones in mancala: 17

NIL

[4]> (random-game-test)

Test with all moves displayed:

	HB	B6	B5	B4	B3	B2	B1	
	—	—	—	—	—	—	—	
	4	4	4	4	4	4		
	0	—	—	—	—	—	—	
		—	—	—	—	—	0	
		4	4	4	4	4	4	
	—	—	—	—	—	—	—	
	—	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A3

HB	B6	B5	B4	B3	B2	B1	
—	4	4	4	4	4	4	—
0	—	—	—	—	—	—	
	4	4	0	5	5	5	1
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in A4

HB	B6	B5	B4	B3	B2	B1	
—	4	4	4	4	5	5	—
0	—	—	—	—	—	—	
	4	4	0	0	6	6	2
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B2

HB	B6	B5	B4	B3	B2	B1	
—	5	5	5	5	0	5	—
0	—	—	—	—	—	—	
	5	4	0	0	6	6	2
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A1

HB	B6	B5	B4	B3	B2	B1	
—	5	5	5	5	0	5	—
0	—	—	—	—	—	—	
	0	5	1	1	7	7	2
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A6

HB	B6	B5	B4	B3	B2	B1	
—	6	6	6	6	1	6	—
0	—	—	—	—	—	—	
	—	—	—	—	—	—	3
	0	5	1	1	7	0	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B6

HB	B6	B5	B4	B3	B2	B1	
—	0	6	6	6	1	6	—
0	—	—	—	—	—	—	
	—	—	—	—	—	—	3
	1	6	2	2	8	1	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	0	6	6	6	1	0	—
0	—	—	—	—	—	—	
	—	—	—	—	—	—	9
	1	6	2	2	8	1	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B2

HB	B6	B5	B4	B3	B2	B1	
—	0	6	6	7	0	0	—
0	—	—	—	—	—	—	
	—	—	—	—	—	—	9
	1	6	2	2	8	1	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B3

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	0	0	0	—
1	—	—	—	—	—	—	—
—	—	—	—	—	—	—	9
—	2	7	3	2	8	1	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A3

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	0	0	0	—
1	—	—	—	—	—	—	—
—	—	—	—	—	—	—	9
—	2	7	0	3	9	2	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A6

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	0	1	1	—
1	—	—	—	—	—	—	—
—	—	—	—	—	—	—	9
—	2	7	0	3	9	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player picks up and stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	0	1	1	—
10	—	—	—	—	—	—	—
—	—	—	—	—	—	—	9
—	2	7	0	3	0	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A4

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	0	1	1	—
10	—	—	—	—	—	—	—
—	—	—	—	—	—	—	10
—	2	7	0	0	1	1	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in A5

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	0	1	1	—
10	—	—	—	—	—	—	—
—	—	—	—	—	—	—	10
—	2	7	0	0	0	2	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A6

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	0	1	2	—
10	—	—	—	—	—	—	—
—	—	—	—	—	—	—	11
—	2	7	0	0	0	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B1

HB	B6	B5	B4	B3	B2	B1	
—	1	7	7	1	2	0	—
10	—	—	—	—	—	—	—
—	—	—	—	—	—	—	11
—	2	7	0	0	0	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B6

HB	B6	B5	B4	B3	B2	B1	
—	0	7	7	1	2	0	—
11	—	—	—	—	—	—	—
—	—	—	—	—	—	—	11
—	2	7	0	0	0	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in B4

HB	B6	B5	B4	B3	B2	B1	
—	1	8	0	1	2	0	—
12	—	—	—	—	—	—	—
—	—	—	—	—	—	—	11
—	3	8	1	1	0	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A2

HB	B6	B5	B4	B3	B2	B1	
—	1	8	0	2	3	1	—
12	—	—	—	—	—	—	—
—	—	—	—	—	—	—	12
—	3	0	2	2	1	1	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B3

HB	B6	B5	B4	B3	B2	B1	
—	1	9	1	0	3	1	—
12	—	—	—	—	—	—	—
—	—	—	—	—	—	—	12
—	3	0	2	2	1	1	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B5

HB	B6	B5	B4	B3	B2	B1	
—	2	0	1	0	3	2	—
12	—	—	—	—	—	—	—
—	—	—	—	—	—	—	13
—	4	1	3	3	2	2	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B1

HB	B6	B5	B4	B3	B2	B1	
—	2	0	1	1	4	0	—
12	—	—	—	—	—	—	—
—	—	—	—	—	—	—	13
—	4	1	3	3	2	2	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B6

HB	B6	B5	B4	B3	B2	B1	
—	0	0	1	1	4	0	—
13	—	—	—	—	—	—	—
—	—	—	—	—	—	—	13
—	5	1	3	3	2	2	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A1

HB	B6	B5	B4	B3	B2	B1	
—	0	0	1	1	4	0	—
13	—	—	—	—	—	—	—
—	—	—	—	—	—	—	13
—	0	2	4	4	3	3	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A6

HB	B6	B5	B4	B3	B2	B1	
—	0	0	1	2	5	1	—
13	—	—	—	—	—	—	
	0	2	4	4	3	0	13
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B3

HB	B6	B5	B4	B3	B2	B1	
—	0	1	2	0	5	1	—
13	—	—	—	—	—	—	
	0	2	4	4	3	0	13
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	0	1	2	0	5	1	—
15	—	—	—	—	—	—	
	0	0	4	4	3	0	13
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A3

HB	B6	B5	B4	B3	B2	B1	
—	0	1	2	0	5	1	—
15	—	—	—	—	—	—	
	0	0	0	5	4	1	14
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in A6

HB	B6	B5	B4	B3	B2	B1	
—	0	1	2	0	5	1	—
15	—	—	—	—	—	—	—
—	—	—	—	—	—	—	15
—	0	0	0	5	4	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in A4

HB	B6	B5	B4	B3	B2	B1	
—	0	1	2	0	6	2	—
15	—	—	—	—	—	—	—
—	—	—	—	—	—	—	16
—	0	0	0	0	5	1	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B2

HB	B6	B5	B4	B3	B2	B1	
—	1	2	3	1	0	2	—
15	—	—	—	—	—	—	—
—	—	—	—	—	—	—	16
—	1	1	0	0	5	1	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player picks up stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	1	0	3	1	0	2	—
15	—	—	—	—	—	—	—
—	—	—	—	—	—	—	18
—	1	1	0	0	5	1	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B4

HB	B6	B5	B4	B3	B2	B1	
—	2	1	0	1	0	2	—
16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	18
—	1	1	0	0	5	1	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in B3

HB	B6	B5	B4	B3	B2	B1	
—	2	1	1	0	0	2	—
16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	18
—	1	1	0	0	5	1	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up and stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	2	1	1	0	0	2	—
16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	18
—	1	1	0	0	5	1	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A6

HB	B6	B5	B4	B3	B2	B1	
—	2	1	1	0	0	2	—
16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	19
—	1	1	0	0	5	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in A2

HB	B6	B5	B4	B3	B2	B1	
—	2	1	1	0	0	2	—
16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	19
—	1	0	1	0	5	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player picks up and stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	2	1	0	0	0	2	—
16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	20
—	1	0	1	0	5	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B5

HB	B6	B5	B4	B3	B2	B1	
—	3	0	0	0	0	2	—
16	—	—	—	—	—	—	—
—	—	—	—	—	—	—	20
—	1	0	1	0	5	0	—
—	—	—	—	—	—	—	—
—	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B6

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	0	0	0	0	0	2	
—	—	—	—	—	—	—	—
							20
	2	1	1	0	5	0	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A1

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	0	0	0	0	0	2	
—	—	—	—	—	—	—	—
							20
	0	2	2	0	5	0	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A3

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	0	0	0	0	0	2	
—	—	—	—	—	—	—	—
							20
	0	2	0	1	6	0	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in A5

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	0	0	1	1	1	3	
—	—	—	—	—	—	—	—
							21
	0	2	0	1	0	1	
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B3

	HB	B6	B5	B4	B3	B2	B1	
	—	—	—	—	—	—	—	
	0	0	2	0	1	3		
17	—	—	—	—	—	—		
							21	
	0	2	0	1	0	1		
	—	—	—	—	—	—		
	A1	A2	A3	A4	A5	A6	HA	

Picking up stones in B4

	HB	B6	B5	B4	B3	B2	B1	
	—	—	—	—	—	—	—	
	1	1	0	0	1	3		
17	—	—	—	—	—	—		
							21	
	0	2	0	1	0	1		
	—	—	—	—	—	—		
	A1	A2	A3	A4	A5	A6	HA	

Player picks up stones in opposite space and places them in the player's mancala

	HB	B6	B5	B4	B3	B2	B1	
	—	—	—	—	—	—	—	
	1	1	0	0	1	3		
17	—	—	—	—	—	—		
							21	
	0	2	0	1	0	1		
	—	—	—	—	—	—		
	A1	A2	A3	A4	A5	A6	HA	

Player A's turn

Random player picks up stones in A6

	HB	B6	B5	B4	B3	B2	B1	
	—	—	—	—	—	—	—	
	1	1	0	0	1	3		
17	—	—	—	—	—	—		
							22	
	0	2	0	1	0	0		
	—	—	—	—	—	—		
	A1	A2	A3	A4	A5	A6	HA	

Last stone placed in player's mancala

Random player moves again!

Random player picks up stones in A4

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	1	1	0	0	1	3	
—	—	—	—	—	—	—	—
	0	2	0	0	1	0	22
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up and stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	1	1	0	0	0	3	
—	—	—	—	—	—	—	—
	0	2	0	0	1	0	23
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B1

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	1	1	1	1	1	0	
—	—	—	—	—	—	—	—
	0	2	0	0	1	0	23
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up and stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	—	—	—	—	—	—	—
17	1	1	1	1	1	0	
—	—	—	—	—	—	—	—
	0	2	0	0	1	0	23
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A2

HB	B6	B5	B4	B3	B2	B1	
—	1	1	1	1	1	0	—
17	—	—	—	—	—	—	—
—	—	—	—	—	—	—	23
—	0	0	1	1	1	0	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up and stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	1	1	1	0	1	0	—
17	—	—	—	—	—	—	—
—	—	—	—	—	—	—	24
—	0	0	1	1	1	0	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B4

HB	B6	B5	B4	B3	B2	B1	
—	1	2	0	0	1	0	—
17	—	—	—	—	—	—	—
—	—	—	—	—	—	—	24
—	0	0	1	1	1	0	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Picking up stones in B5

HB	B6	B5	B4	B3	B2	B1	
—	2	0	0	0	1	0	—
18	—	—	—	—	—	—	—
—	—	—	—	—	—	—	24
—	0	0	1	1	1	0	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala
 Random player moves again!
 Random player picks up stones in B2

HB	B6	B5	B4	B3	B2	B1	
—	2	0	0	1	0	0	—
18	—	—	—	—	—	—	—
—	—	—	—	—	—	—	24
—	0	0	1	1	1	0	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	2	0	0	1	0	0	—
19	—	—	—	—	—	—	—
—	—	—	—	—	—	—	24
—	0	0	1	0	1	0	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player A's turn
 Random player picks up stones in A5

HB	B6	B5	B4	B3	B2	B1	
—	2	0	0	1	0	0	—
19	—	—	—	—	—	—	—
—	—	—	—	—	—	—	24
—	0	0	1	0	0	1	—
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	2	0	0	1	0	0	—
19	—	—	—	—	—	—	
	0	0	1	0	0	1	24
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player B's turn

Random player picks up stones in B3

HB	B6	B5	B4	B3	B2	B1	
—	2	0	1	0	0	0	—
19	—	—	—	—	—	—	
	0	0	1	0	0	1	24
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player picks up stones in opposite space and places them in the player's mancala

HB	B6	B5	B4	B3	B2	B1	
—	2	0	1	0	0	0	—
20	—	—	—	—	—	—	
	0	0	0	0	0	1	24
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Player A's turn

Random player picks up stones in A6

HB	B6	B5	B4	B3	B2	B1	
—	2	0	1	0	0	0	—
20	—	—	—	—	—	—	
	0	0	0	0	0	0	25
—	—	—	—	—	—	—	—
	A1	A2	A3	A4	A5	A6	HA

Last stone placed in player's mancala

Final Score:
Player A: 25
Player B: 23
Player A wins!
Test with only results displayed:
Final Score:
Player A: 23
Player B: 25
Player B wins!
NIL