

Plan Validation Report

VAL

April 28, 2017

1 Domain and Problem

Domain: rovers

Problem: rover_prob

2 Plan: solution

2.1 Plan

Plan size: 5

Time	Action
0:	(move_up r) [1]
3:	(move_up r) [1]
6:	(move_right r) [1]
9:	(move_right r) [1]
12:	(move_right r) [1]

2.2 Plan To Validate

Time	Happening
0:	(move_up r) - <i>start</i>
1:	<i>Invariant for</i> (move_up r)
1:	(move_up r) - <i>end</i>
3:	(move_up r) - <i>start</i>

4: *Invariant for (move_up r)*
 4: (move_up r) - *end*

 6: (move_right r) - *start*

 7: *Invariant for (move_right r)*
 7: (move_right r) - *end*

 9: (move_right r) - *start*

 10: *Invariant for (move_right r)*
 10: (move_right r) - *end*

 12: (move_right r) - *start*

 13: *Invariant for (move_right r)*
 13: (move_right r) - *end*

2.3 Plan Validation

Time	Details
0:	Checking Happening... ...OK! Deleting (idle r)
1:	Checking Happening... ...OK!
1:	Checking Happening... ...OK! Adding (idle r) Updating (y r) (0) by 1 assignment.
3:	Checking Happening... ...OK! Deleting (idle r)
4:	Checking Happening... ...OK!
4:	Checking Happening... ...OK! Adding (idle r) Updating (y r) (1) by 2 assignment.

6: Checking Happening... ...OK!
 Deleting (idle r)

7: Checking Happening... ...OK!

7: Checking Happening... ...OK!
 Adding (idle r)
 Updating (x r) (0) by 1 assignment.

9: Checking Happening... ...OK!
 Deleting (idle r)

10: Checking Happening... ...OK!

10: Checking Happening... ...OK!
 Adding (idle r)
 Updating (x r) (1) by 2 assignment.

12: Checking Happening... ...OK!
 Deleting (idle r)

13: Checking Happening... ...OK!

13: Checking Happening... ...OK!
 Adding (idle r)
 Updating (x r) (2) by 3 assignment.

Plan executed successfully - checking goal

(idle r) (x r) = 3 (y r) = 2

2.4 Primitive Numerical Expression Graphs

2.5 Gantt Chart

Gantt Chart Key

Row 1

No	Time	Action
1	0	(move_up r) [1]

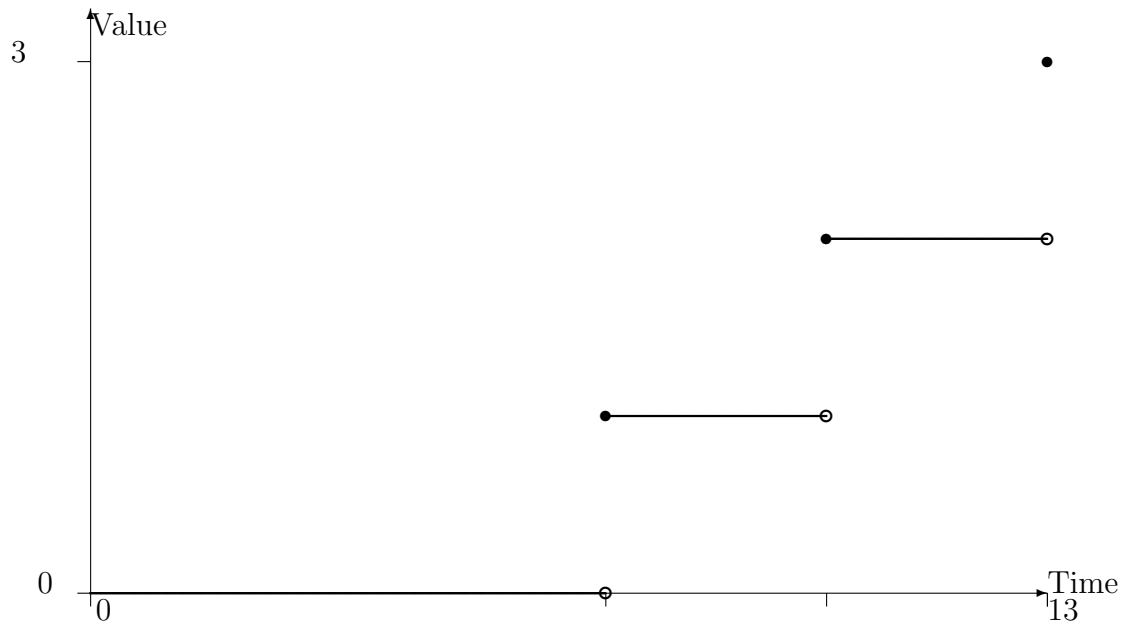


Figure 2.1: Graph of $(x \ r)$.

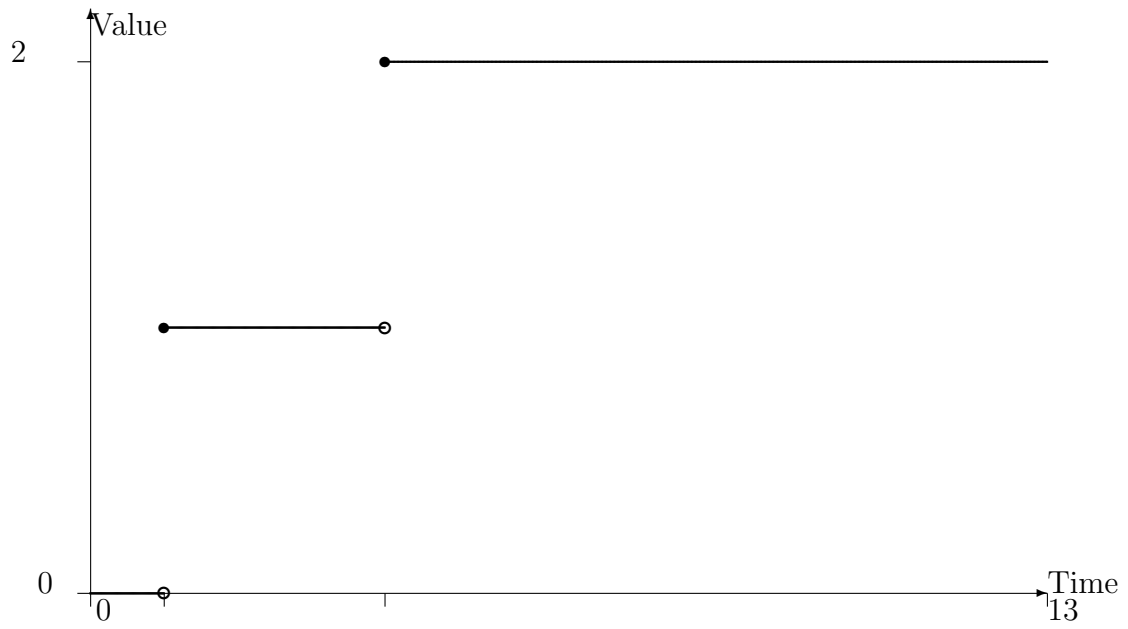


Figure 2.2: Graph of $(y \ r)$.

2	3	(move_up r) [1]
3	6	(move_right r) [1]
4	9	(move_right r) [1]
5	12	(move_right r) [1]

3 Successful Plans

Value	Plan
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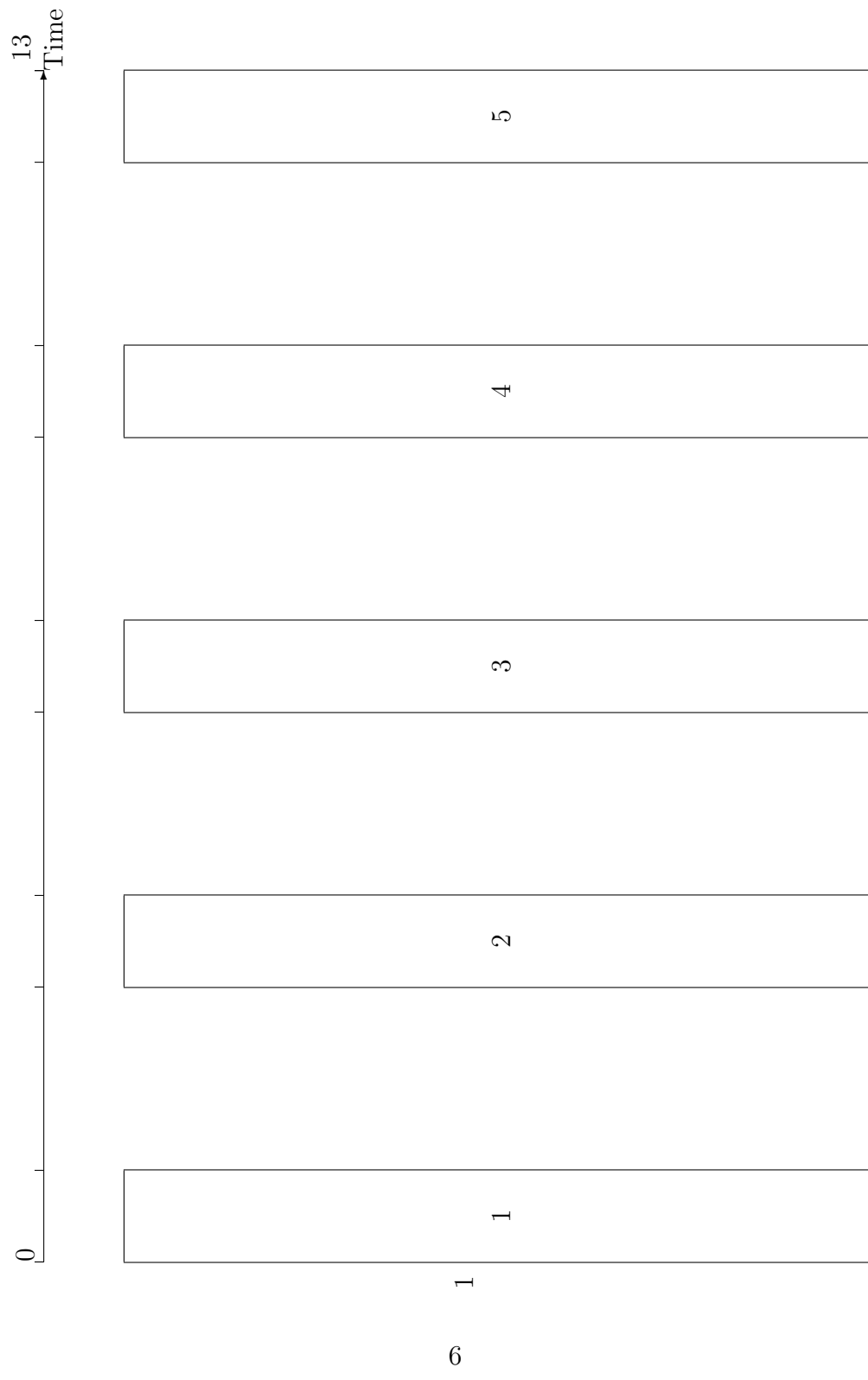


Figure 2.3: Gantt Chart