

Search Model 2

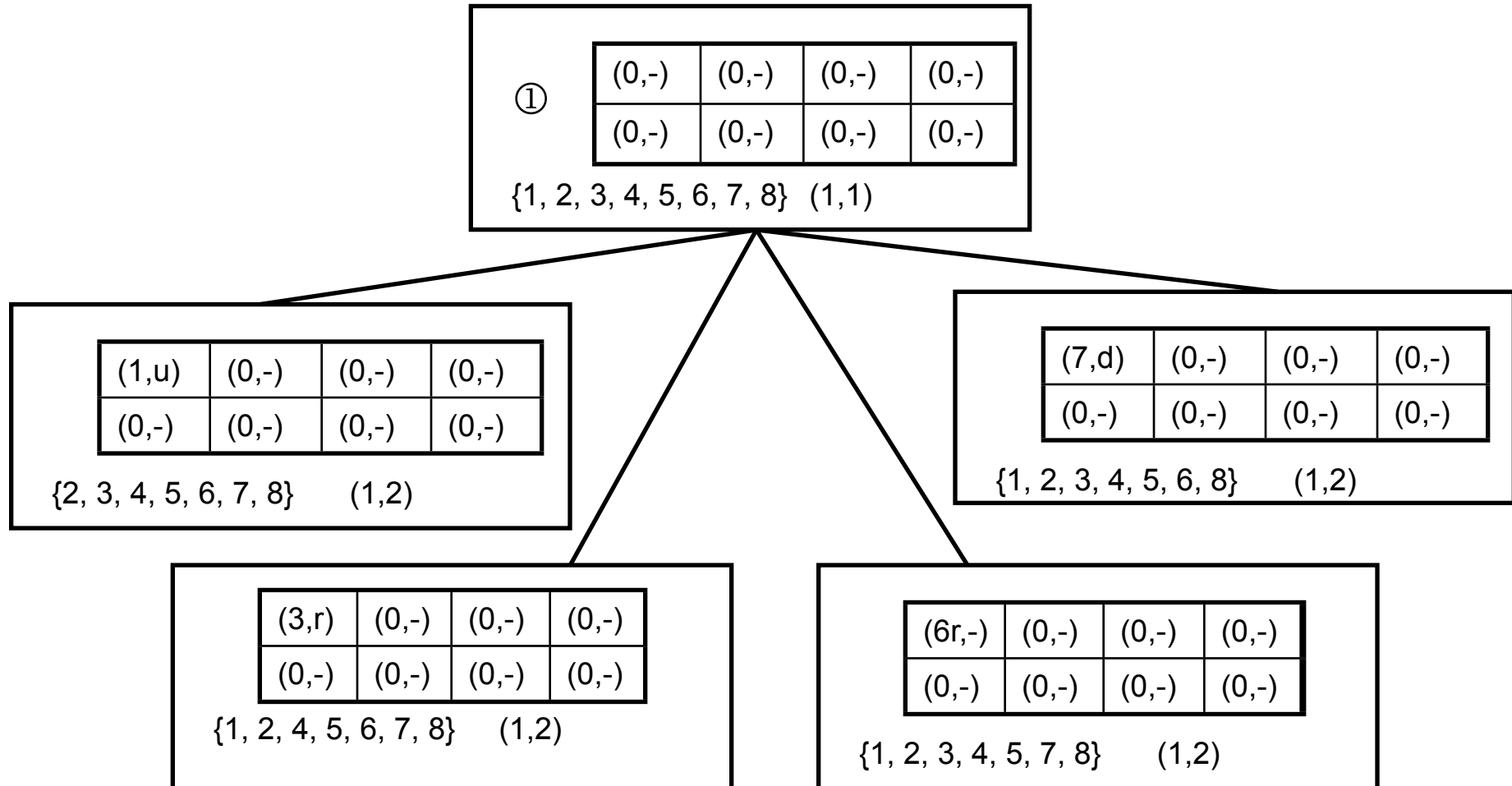
- Using a tree we don't need to keep information about previous states in the search control, rather this data is kept in the search model itself

Search Model 2

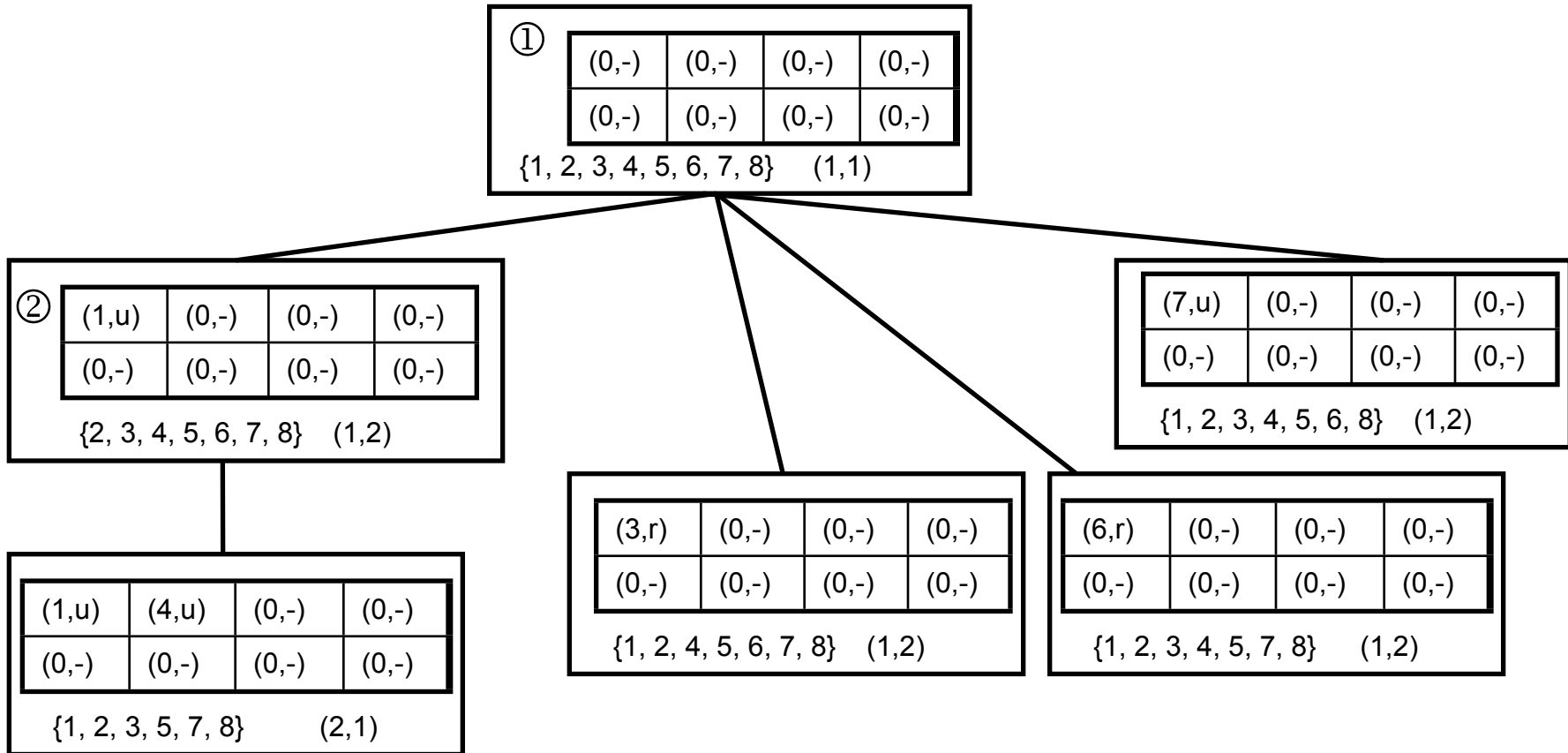
$s_0 =$

(0,-)	(0,-)	(0,-)	(0,-)	{1, 2, 3, 4, 5, 6, 7, 8} (1,1)
(0,-)	(0,-)	(0,-)	(0,-)	

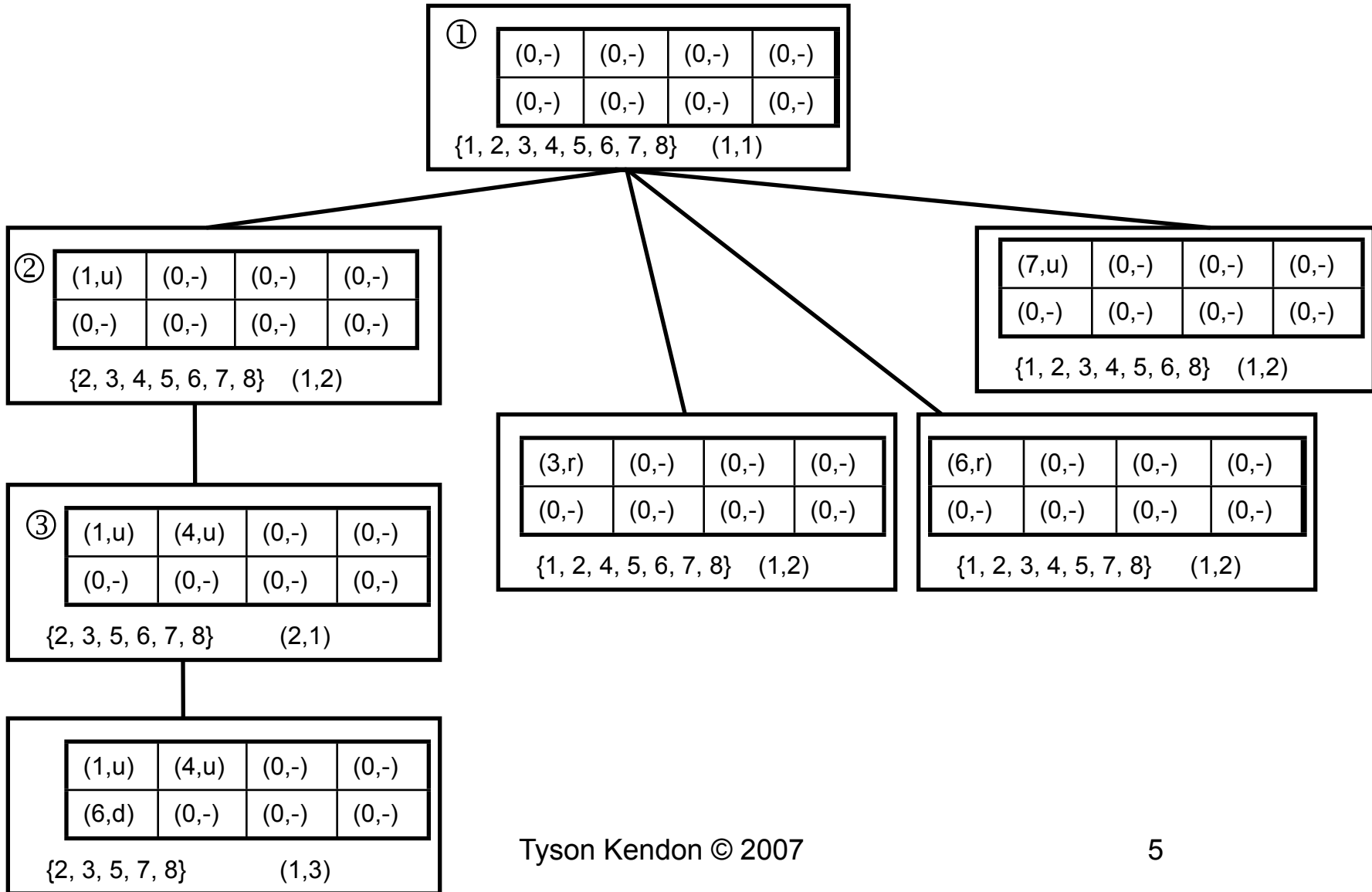
Search Model 2



Search Model 2



Search Model 2



Search Model 2

②

(1,u)	(0,-)	(0,-)	(0,-)
(0,-)	(0,-)	(0,-)	(0,-)

{2, 3, 4, 5, 6, 7, 8} (1,2)

③

(1,u)	(4,u)	(0,-)	(0,-)
(0,-)	(0,-)	(0,-)	(0,-)

{2, 3, 5, 6, 7, 8} (2,1)

④

(1,u)	(4,u)	(0,-)	(0,-)
(6,d)	(0,-)	(0,-)	(0,-)

{2, 3, 5, 7, 8} (1,3)

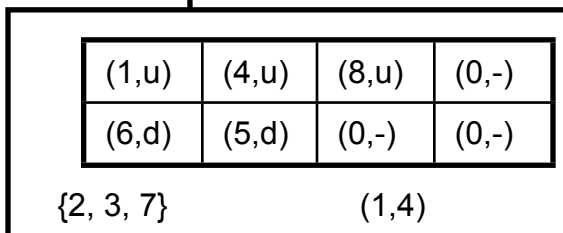
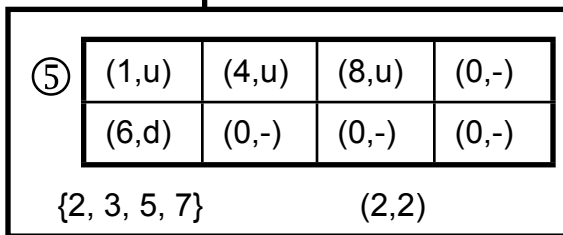
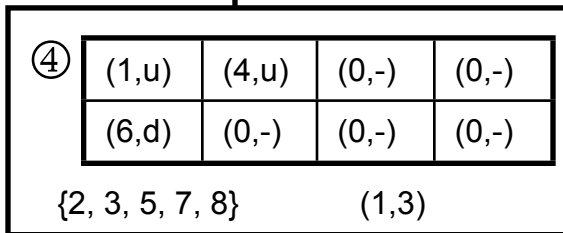
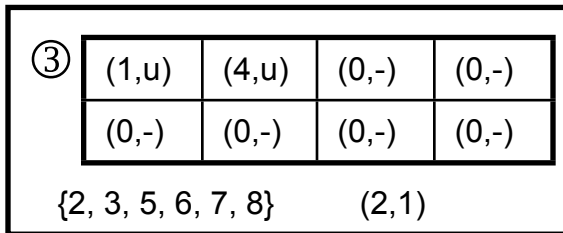
(1,u)	(4,u)	(8,u)	(0,-)
(6,d)	(0,-)	(0,-)	(0,-)

{2, 3, 5, 7} (2,2)

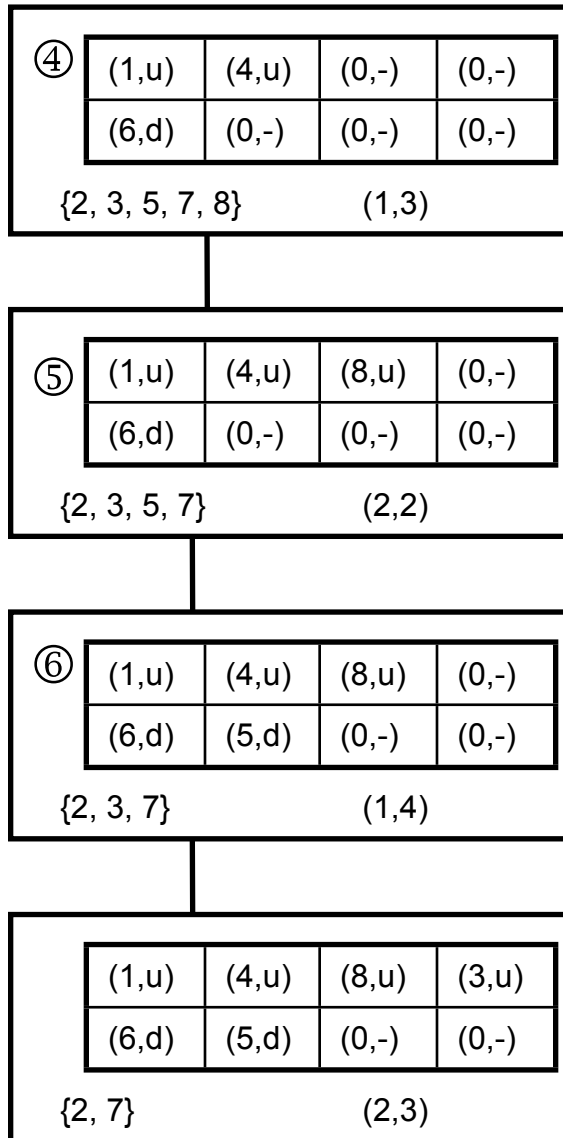
Tyson Kendon © 2007

6

Search Model 2



Search Model 2



Tyson Kendon © 2007

8

Search Model 2

⑤

(1,u)	(4,u)	(8,u)	(0,-)
(6,d)	(0,-)	(0,-)	(0,-)

{2, 3, 5, 7} (2,2)

⑥

(1,u)	(4,u)	(8,u)	(0,-)
(6,d)	(5,d)	(0,-)	(0,-)

{2, 3, 7} (1,4)

⑦

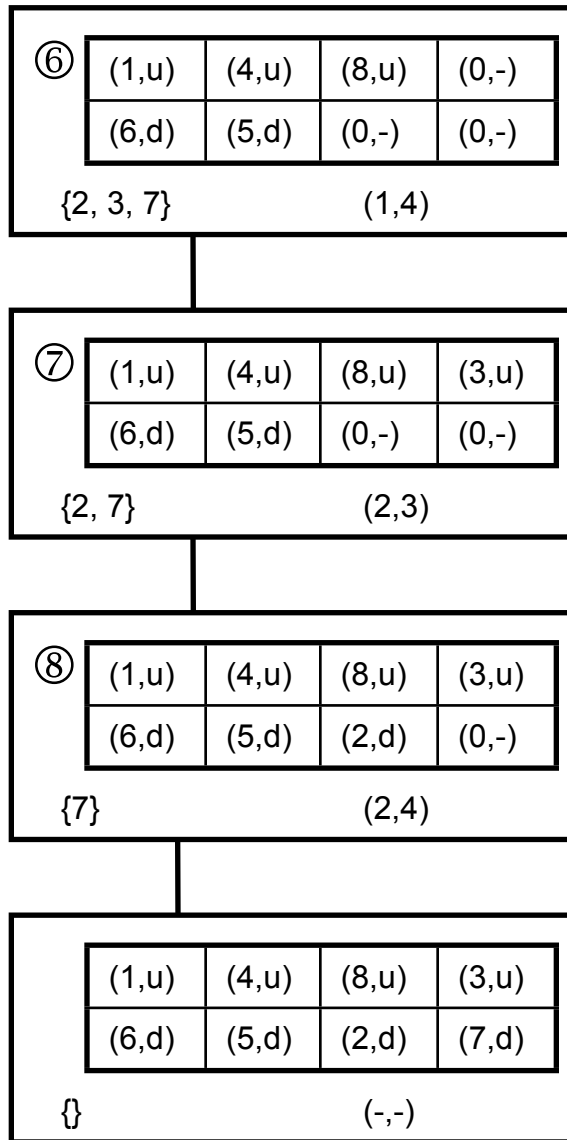
(1,u)	(4,u)	(8,u)	(3,u)
(6,d)	(5,d)	(0,-)	(0,-)

{2, 7} (2,3)

(1,u)	(4,u)	(8,u)	(3,u)
(6,d)	(5,d)	(2,d)	(0,-)

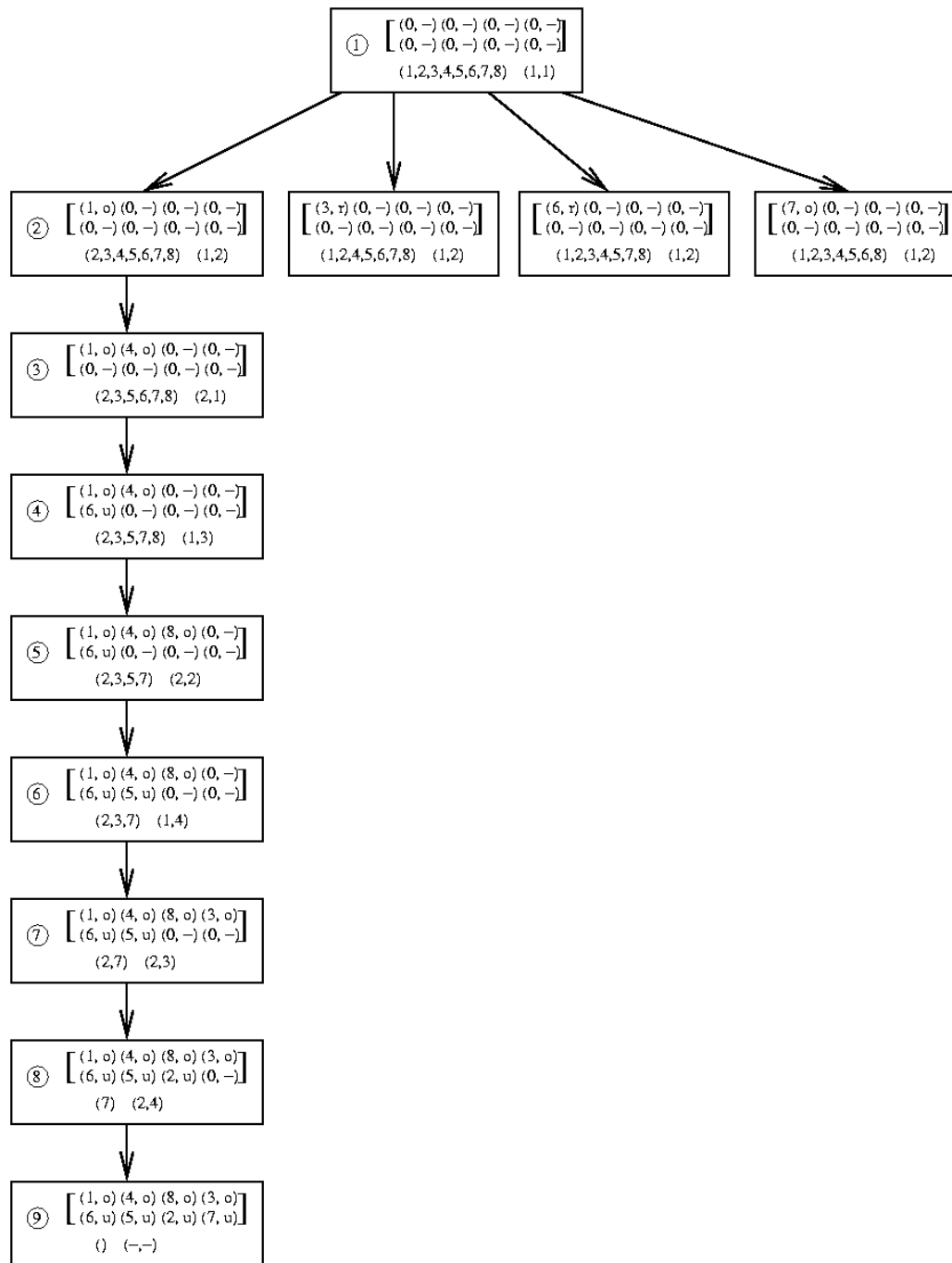
{7} (2,4)

Search Model 2



Tyson Kendon © 2007

10



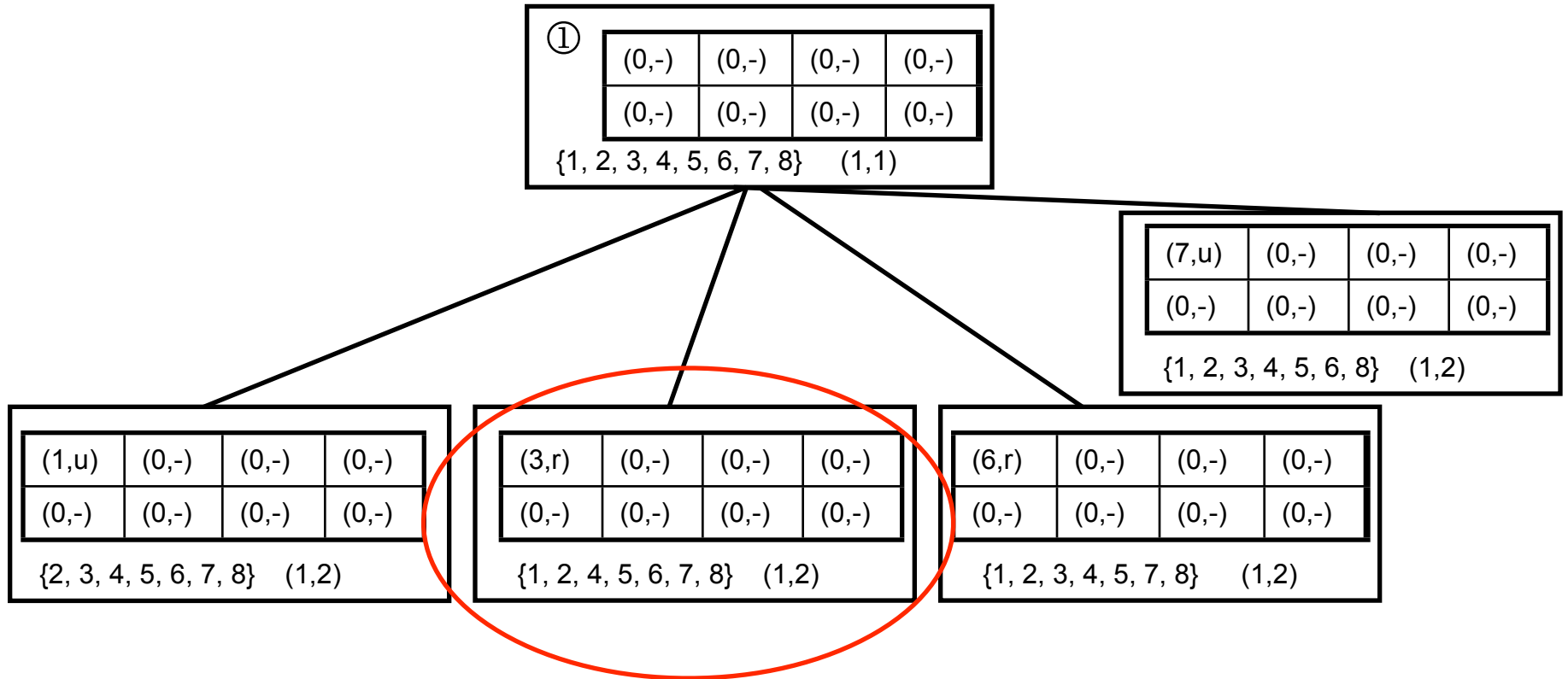
Search Model 2

- $G_{puzzle2}(s_9) = \text{yes}$, since s_9 has a node where Rest is empty
- This search control worked very well for the problem example, on another example it may have generated many more nodes, vice versa another control might have been less efficient on this example

Notes

- Change a node to FAIL if you cannot extend the matrix to any successors

Notes



Notes

