



(0,0)	(1,0)	(2,0)	(3,0)
			
(0,1)	(1,1)	(2,1)	(3,1)
	B		
(0,2)	(1,2)	(2,2)	(3,2)
	C		A
(0,3)	(1,3)	(2,3)	(3,3)
			



$$v_0 = \{(1, 0)\}$$

$$v_A = \emptyset$$

$$v_B = \emptyset$$

$$v_C = \emptyset$$

$$q = [((1, 0), [(1, 0)], 0)]$$

(0,0)	(1,0)	(2,0)	(3,0)
			
(0,1)	(1,1)	(2,1)	(3,1)
	B		
(0,2)	(1,2)	(2,2)	(3,2)
	C		A
(0,3)	(1,3)	(2,3)	(3,3)
			

$$c_1 = ((1, 0), [(1, 0)], 0)$$

$$\Downarrow$$

$$v_0 = \{(1, 0)\}$$

$$v_A = \emptyset$$

$$v_B = \{(\underline{1, 1})\}$$

$$v_C = \emptyset$$

$$q = [(\underline{1, 1}), [(1, 0), (1, 1)], B]$$

(0,0)	(1,0)	(2,0)	(3,0)
(0,1)	(1,1)	(2,1)	(3,1)
(0,2)	(1,2)	(2,2)	(3,2)
(0,3)	(1,3)	(2,3)	(3,3)

Diagram illustrating a 4x4 grid with coordinates (x,y) from (0,0) to (3,3). The grid is divided into four quadrants by a dashed line from (1,0) to (1,3). The quadrants are labeled A, B, and C. A blue circle is at (1,0) and a red circle is at (0,3). The cell (1,1) is highlighted in yellow and contains the letter B. The cell (1,2) contains the letter C. The cell (3,2) contains the letter A. Dotted lines connect (1,0) to (1,1) and (1,1) to (1,2).

$$c_2 = ((1, 1), [(1, 0), (1, 1)], B)$$

\Downarrow

$$v_0 = \{(1, 0)\}$$

$$v_A = \emptyset$$

$$v_B = \{(1, 1), (2, 1)\}$$

$$v_C = \emptyset$$

$$q = [(2, 1), [(1, 0), (1, 1)], (2, 1)], B]$$

(0,0)	(1,0)	(2,0)	(3,0)
(0,1)	(1,1)	(2,1)	(3,1)
(0,2)	(1,2)	(2,2)	(3,2)
(0,3)	(1,3)	(2,3)	(3,3)

Diagram illustrating a 4x4 grid with coordinates (x,y) in the top-left corner of each cell. The grid is divided into four quadrants by a vertical line between x=1 and x=2, and a horizontal line between y=1 and y=2. The quadrants are labeled A, B, and C in red. A blue circle is located at (1,0), and a red circle is located at (0,3). A green dashed line connects (1,0) to (1,1), and a red dashed line connects (1,1) to (2,1). The cell (2,1) is highlighted in yellow.

$$c_3 = ((2, 1), [(1, 0), (1, 1), (2, 1)], B)$$

$$\Downarrow$$

$$v_0 = \{(1, 0)\}$$

$$v_A = \emptyset$$

$$v_B = \{(1, 1), (2, 1), (3, 1)\}$$

$$v_C = \emptyset$$

$$q = [(3, 1), [\dots, (2, 1), (3, 1)], B]$$

(0,0)	(1,0)	(2,0)	(3,0)
(0,1)	(1,1)	(2,1)	(3,1)
(0,2)	(1,2)	(2,2)	(3,2)
(0,3)	(1,3)	(2,3)	(3,3)

$$c_4 = ((3, 1), [\dots, (2, 1), (3, 1)], B)$$

$$\Downarrow$$

$$v_0 = \{(1, 0)\}$$

$$v_A = \{(3, 2)\}$$

$$v_B = \{(1, 1), (2, 1), (3, 1)\}$$

$$v_C = \emptyset$$

$$q = [((3, 2), [\dots, (3, 1), (3, 2)], A)]$$

(0,0)	(1,0)	(2,0)	(3,0)
(0,1)	(1,1)	(2,1)	(3,1)
(0,2)	(1,2)	(2,2)	(3,2)
(0,3)	(1,3)	(2,3)	(3,3)

$$c_5 = ((3, 2), [\dots, (3, 1), (3, 2)], A)$$

$$\Downarrow$$

$$v_0 = \{(1, 0)\}$$

$$v_A = \{(3, 2), (3, 3)\}$$

$$v_B = \{(1, 1), (2, 1), (3, 1)\}$$

$$v_C = \emptyset$$

$$q = [((3, 3), [\dots, (3, 2), (3, 3)], A)]$$

(0,0)	(1,0)	(2,0)	(3,0)
(0,1)	(1,1)	(2,1)	(3,1)
(0,2)	(1,2)	(2,2)	(3,2)
(0,3)	(1,3)	(2,3)	(3,3)

$$c_6 = ((3, 3), [\dots, (3, 2), (3, 3)], A)$$

$$\Downarrow$$

$$v_0 = \{(1, 0)\}$$

$$v_A = \{(3, 2), (3, 3), (2, 3)\}$$

$$v_B = \{(1, 1), (2, 1), (3, 1)\}$$

$$v_C = \emptyset$$

$$q = [(2, 3), [\dots, (3, 3), (2, 3)], A]$$

(0,0)	(1,0)	(2,0)	(3,0)
(0,1)	(1,1)	(2,1)	(3,1)
(0,2)	(1,2)	(2,2)	(3,2)
(0,3)	(1,3)	(2,3)	(3,3)

$$c_7 = ((2, 3), [\dots, (3, 3), (2, 3)], A)$$

$$\Downarrow$$

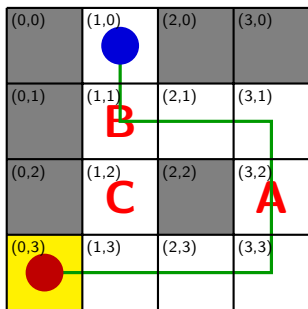
$$v_0 = \{(1, 0)\}$$

$$v_A = \{(3, 2), (3, 3), (2, 3), (1, 3)\}$$

$$v_B = \{(1, 1), (2, 1), (3, 1)\}$$

$$v_C = \emptyset$$

$$q = [((1, 3), [\dots, (2, 3), (1, 3)], A)]$$



$$c_0 = ((0, 3), [\dots, (1, 3), (0, 3)], A)$$

$$\Downarrow$$

$$v_0 = \{(1, 0)\}$$

$$v_A = \{\dots, (3, 3), (2, 3), (1, 3), (0, 3)\}$$

$$v_B = \{(1, 1), (2, 1), (3, 1)\}$$

$$v_C = \emptyset$$

$$q = []$$