

A 10x10 grid of points. The points are colored as follows: the top row has 4 red, 1 orange, and 5 green; the second row has 1 red, 5 blue, and 4 green; the third row has 1 red, 5 blue, and 4 green; the fourth row has 1 red, 5 blue, and 4 green; the fifth row has 1 purple, 5 blue, and 4 green; the sixth row has 1 purple, 5 blue, and 4 green; the seventh row has 1 purple, 5 blue, and 4 green; the eighth row has 1 purple, 5 blue, and 4 green; the ninth row has 1 purple, 5 blue, and 4 green; the bottom row has 5 yellow and 5 blue. A shaded gray triangular region is in the top right corner, bounded by the top edge, the right edge, and a diagonal line from the top-right corner to the point (5, 9). A dashed line extends from the point (9, 1) towards the bottom right.

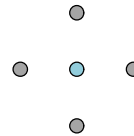
uses surrounding values of the previously executed matrix.













A 10x10 grid of nodes is shown. The nodes are colored as follows: the top row has red nodes at columns 1, 2, 3, and 4, and a purple node at column 5; the second row has red nodes at columns 1, 2, and 3, and a green node at column 6; the third row has red nodes at columns 1, 2, and 3, and a green node at column 7; the fourth row has a red node at column 1 and a green node at column 8; the fifth row has a purple node at column 1 and a green node at column 9; the sixth row has a purple node at column 1 and a green node at column 10; the seventh row has a purple node at column 1 and a green node at column 10; the eighth row has a purple node at column 1 and a green node at column 10; the ninth row has a purple node at column 1 and a green node at column 10; the tenth row has a purple node at column 1 and a green node at column 10. A gray shaded region is present in the top right corner, covering the area where the row index is greater than or equal to the column index. The nodes are connected by a grid of lines.




 300 °C

● 70 °C

● Average of surrounding nodes.



	Top	Right	Left
			
	  	2x  	 2x 
	2x 		

$2x$  
 $2x$ 

This requirement does not initialize at the start of the code due to many cells in the center will remain at 0 for quite a few iterations, depending on matrix size.