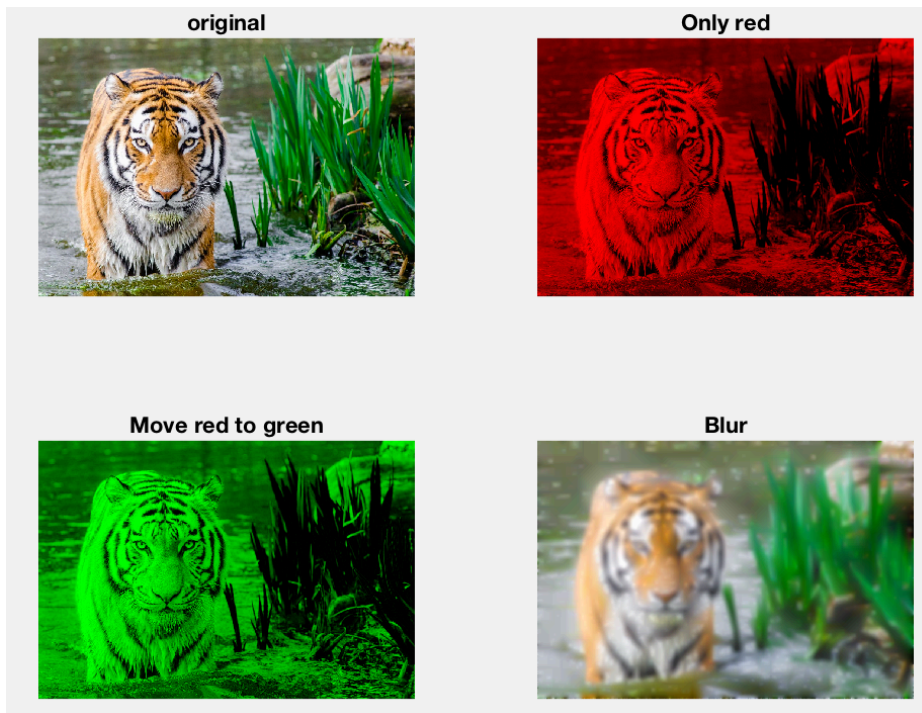




Lab 7 – Participation Activity

You are going to handwrite this code. Take a photo and turn in your solution, when you are done. Write a script that manipulates an image in various ways (please write the code on the next page). Your code should produce the figure below. Your code will import the image stored in the file, ‘tiger.jpeg’, and show the original image in the **first** subplot of the figure (see below). For the **second** subplot, you will alter the image so that the green and blue layers are removed (set to zero), leaving only the red layer. For the **third** subplot, you will alter the image so that red layer is moved to the green layer and the red and blue layers are removed. The **fourth** subplot is the most challenging. You will write code that blurs the image. To do this, you will take every interior pixel (all pixels except for the pixels on the edge) and you will set the value at that pixel equal to the mean of its four neighbors’ values. For example, say we take the red layer, let’s say we are at the i th row and j th column (see diagram below). You will calculate the mean of the four pixels around it and replace its value (the i, j value) with that mean. You will need to do this for every interior pixel (so all pixels except those in the first/last rows and in the first/last columns) for all three layers. You can write this with loops or using vectorization. You do not need to write any user-defined function for this problem, the entire thing should be written in a script file. Since there will be no inputs, your code will only work with ‘tiger.jpeg’.



	$i-1, j$	
$i, j-1$	i, j	$i, j+1$
	$i+1, j$	

Pixel diagram: (i, j) and its 4 neighbors