# **Worksheet 1 – Basic Matrices**

1. Create a matrix M with values M = [2 4 6 8; 10 20 30 40; 5 10 15 20]
2. Get the 2nd row of M by using the colon operator :
3. Get the 4th column of M by using the colon operator :
4. Assign all elements of M greater than 9 the value 0
5. Create a matrix M2 of random integers (0-255) in the size of M. Then display it as a grayscale image.
6. Create an RGB image M3 of size 100 by 200 pixels. Colour the left half orange and the right half blue, as follows. Display the image and also save it.



1. Copy the code in question 6. Name the matrix M4, and add to it such that the image becomes RGBA, i.e. has a 4th channel (which is transparency). Experiment with different transparency levels. What does 0 transparency mean? What is the other extreme?