

MTH 337 Intro to Scientific computing

SAMPLE QUIZ #8

Spring 2021

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The Sample Quiz is for you to practice for the quiz that will be at the end of class on Monday on Gradescope.

Given the array `imga` of dimension $10 \times 14 \times 3$ containing numbers in the $[0,1]$ interval, representing the RGB colors in a 10×14 image.

- (1) Display the array as a image
- (2) Display the image in the red-scale only
- (3) Display the negative image of `imga`
- (4) Set the red component of all the pixels where the blue component is above 0.7 to 0.5
- (5) Make a copy `imgb` of `imga`. Zero-out (make in color = black) all pixels that are full red (red component is 1 and green and blue are 0).
- (6) Create a file called "yummy.txt" and write in it your 3 favorite foods. Each food should be on a different line.
- (7) Open the file again to add one more food to it (on a new line).
- (8) Open the file and read all lines of the file. The result should be a list `cibo` where each element is a line of the file
- (9) Open the file and read the first 8 characters. Save these characters in a string called `eight`