

### Exercise 3

Download a color image through internet

(a) Display a color image



(b) Display a gray image

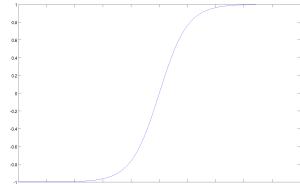
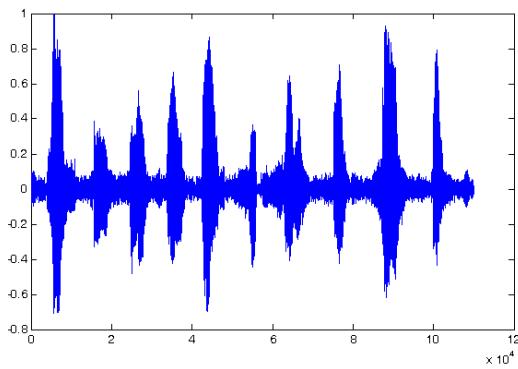


(c) Display its transpose and clockwise 90-degree rotation respectively.

(d) Display the horizontal mirror



2. Download two audio files at page 8 and display these two



sound series.

3. Display functions using matlab.

(a)  $f(x) = \tanh(x)$ , where  $x \in [-5, 5]$ .

(b)  $f(x_1, x_2) = \cos(x_1 + x_2) + \cos(x_1 - x_2)$ , where  $x_1$  and  $x_2$

belong  $[-2\pi, 2\pi]$ .

(c)  $f(x_1, x_2) = \tanh(x_1 + x_2) + \tanh(x_1 - x_2)$ , where  $x_1$  and  $x_2$  belong  $[-2\pi, 2\pi]$ .

(d)  $\cos(x)$  and  $\sin(x)$  in a plot, where  $x$  belongs  $[-2\pi, 2\pi]$ .

(e)  $\cos(x)$  and  $\sin(x)$  in two subplots of a figure, where  $x$  belongs  $[-2\pi, 2\pi]$ .

