1. Do exercises 1, 2, 3, and 5, from pages 42 and 43 in the textbook.

2. Run the histogram equalization algorithm described in the textbook. Experiment with images with various kinds of lighting and report your results.

3. Run the Rudin-Osher-Fatemi de-noising algorithm described in the textbook. Experiment with various parameter choices and images with different levels of noise and report your results.