I = imread("IMG\_002.jpg");

gs = rgb2gray(I);

imshow(gs)

gsAdj = imadjust(gs);

imshowpair(gs,gsAdj,"montage");

imhist(gs);

imhist(gsAdj);

img = imread("IMG\_005.jpg");

gs = rgb2gray(img);

imshow(gs)

BW = gs > 200;

imshow(BW)

S1 = sum(BW,1);

plot(S1)

S2 = sum(BW,2);

plot(S2)

I = imread("IMG\_004.jpg");

gs = rgb2gray(I);

H1 = fspecial("sobel")

H2 = fspecial("average",3)

gmsobel = imfilter(gs, H1);

imshowpair(gs, gmsobel, "montage")

I = imread("IMG\_004.jpg");

gs = rgb2gray(I);

H1 = [1 1 1; 0 0 0; -1 -1 -1]

gs = imfilter(gs,H2,"replicate");

imshow(gs)

I = imread("IMG\_004.jpg");

gs = rgb2gray(I);

H2 = [1 0 -1; 1 0 -1; 1 0 -1]

gs = imfilter(gs,H2,"replicate");

imshow(gs)