COMP 4687

Week 7 Practice

1) Prewitt

m0701_Prewitt.m

```
clc
clear all
imgGray = imread('image1.bmp');
%imgGray = imread('image3.bmp');
%imgGray = imread('Cyprus2.png');
imshow(imgGray);

image2 = edge(imgGray,"prewitt");
figure
imshow(image2);

image3 = edge(imgGray,"prewitt","horizontal");
figure
imshow(image3);

image4 = edge(imgGray,"prewitt","vertical");
figure
imshow(image4);
```

Figure 1

File Edit View Insert Tools Desktop Window Help

Figure 2

File Edit View Insert Tools Desktop Window Help

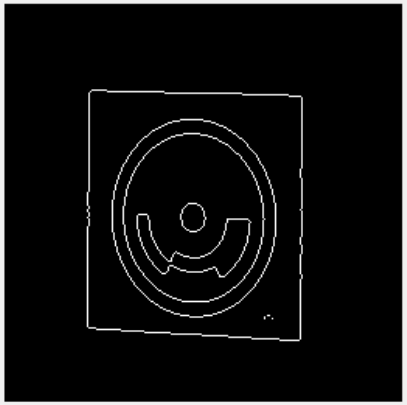


Figure 3

File Edit View Insert Tools Desktop Window Help

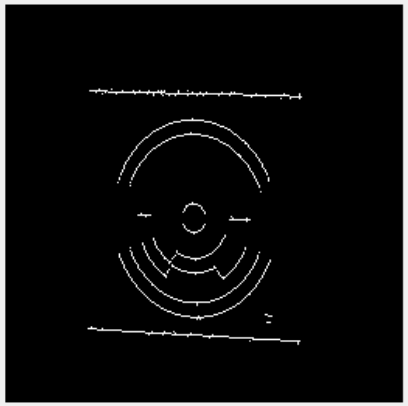


Figure 4

File Edit View Insert Tools Desktop Window Help

2) Sobel

m0702_Sobel.m

```
clc
clear all
imgGray = imread('image1.bmp');
%imgGray = imread('image3.bmp');
%imgGray = imread('Cyprus2.png');
imshow(imgGray);

image2 = edge(imgGray,"sobel");
figure
imshow(image2);

image3 = edge(imgGray,"sobel","horizontal");
figure
imshow(image3);

image4 = edge(imgGray,"sobel","vertical");
figure
imshow(image4);
```

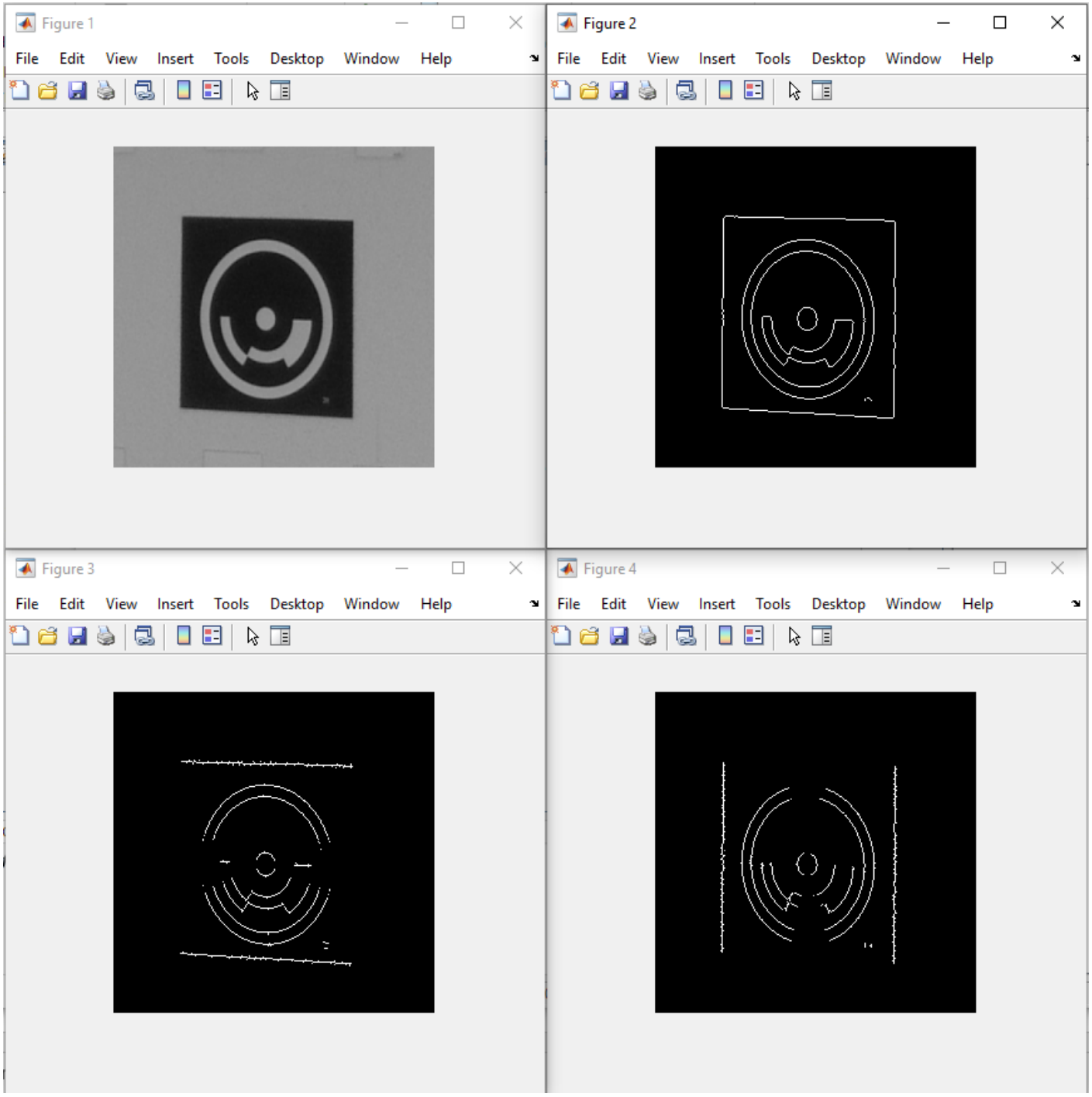


Figure 1
File Edit View Insert Tools Desktop Window Help
Figure 2
File Edit View Insert Tools Desktop Window Help
Figure 3
File Edit View Insert Tools Desktop Window Help
Figure 4
File Edit View Insert Tools Desktop Window Help

3) Roberts

m0703_Roberts.m

```
clc
clear all
imgGray = imread('image1.bmp');
%imgGray = imread('image3.bmp');
%imgGray = imread('Cyprus2.png');
imshow(imgGray);

image2 = edge(imgGray,"roberts");
figure
imshow(image2);

image3 = edge(imgGray,"roberts","horizontal");
figure
imshow(image3);

image4 = edge(imgGray,"roberts","vertical");
figure
imshow(image4);
```

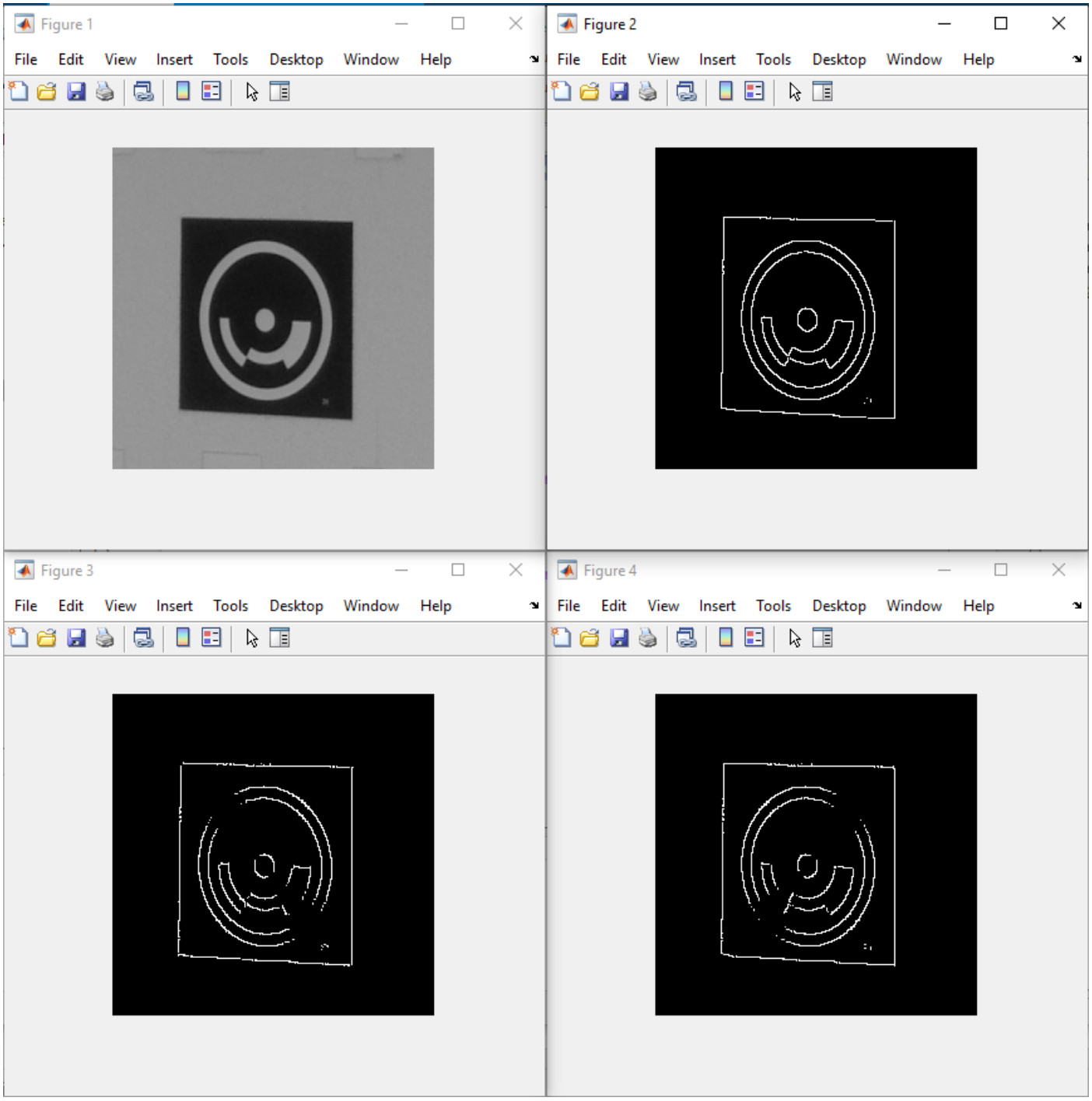


Figure 1
File Edit View Insert Tools Desktop Window Help
Figure 2
File Edit View Insert Tools Desktop Window Help
Figure 3
File Edit View Insert Tools Desktop Window Help
Figure 4
File Edit View Insert Tools Desktop Window Help

4) ALL

m0704_All.m

```
clc
clear all
imgGray = imread('image1.bmp');
%imgGray = imread('image3.bmp');
%imgGray = imread('Cyprus2.png');
imshow(imgGray);

image2 = edge(imgGray,"prewitt");
figure
imshow(image2);
title('prewitt')

image3 = edge(imgGray,"sobel");
figure
imshow(image3);
title('sobel')

image4 = edge(imgGray,"roberts");
figure
imshow(image4);
title('roberts')
```

Figure 1

File Edit View Insert Tools Desktop Window Help

Figure 2

File Edit View Insert Tools Desktop Window Help

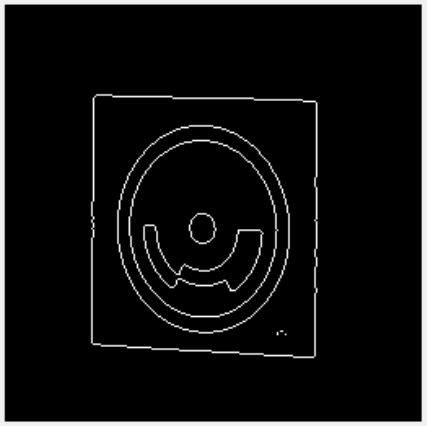


Figure 3

File Edit View Insert Tools Desktop Window Help

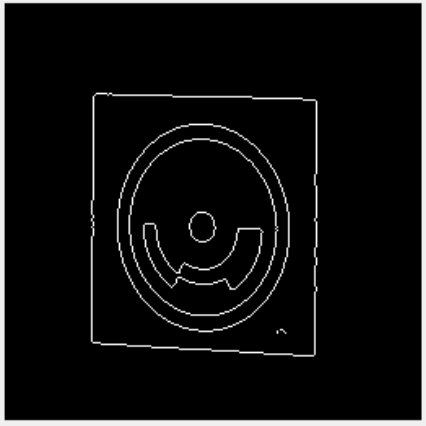
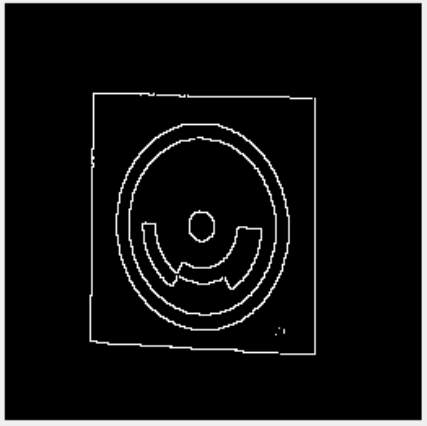


Figure 4

File Edit View Insert Tools Desktop Window Help



5) LoG

m0705_LoG.m

```
clc
clear all
%imgGray = imread('image1.bmp');
imgGray = imread('image3.bmp');
%imgGray = imread('Cyprus2.png');
imshow(imgGray);

image2 = edge(imgGray,"log");
figure
imshow(image2);
title('LoG')
```

Figure 1

File Edit View Insert Tools Desktop Window Help

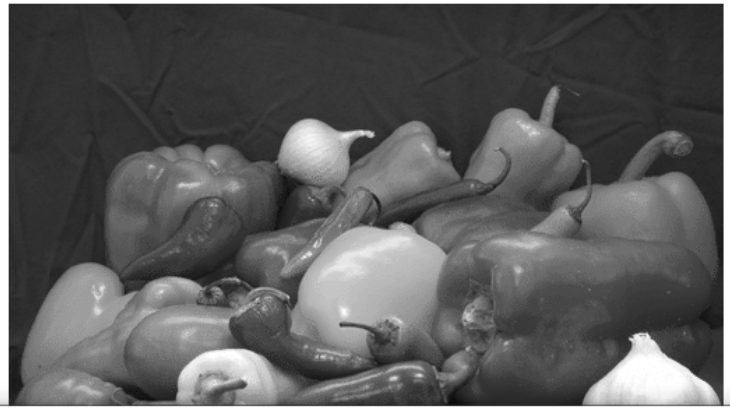


Figure 2

File Edit View Insert Tools Desktop Window Help

LoG