

```

% Problem 1
data = load('604_HW1/usps_all.mat');
data = cell2mat(struct2cell(data));
figure;
for i=1:10
    subplot(2,5,i)
    imshow(reshape(data(:,1,i), [16, 16]), [])
end

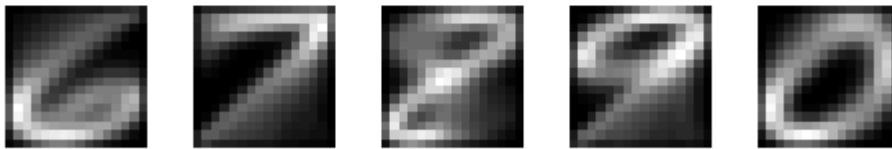
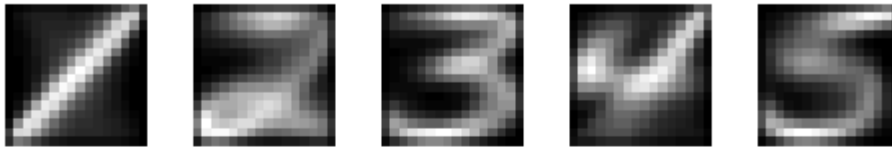
```



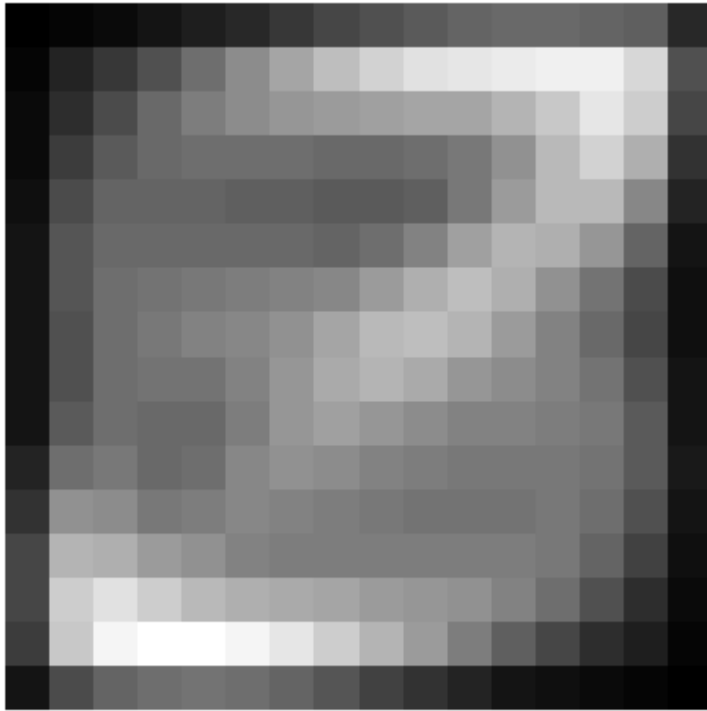
```

% Problem 2
figure;
for i=1:10
    subplot(2,5,i)
    imshow(reshape(mean(data(:, :, i), 2), [16, 16]), [])
end

```



```
% Problem 3
figure;
imshow(reshape(mean(data(:,:,:), [2, 3]), [16, 16]), [])
```



```
% Problem 4
% Here, I'll plot the sample covariance matrix with pixel intensities
% representing matrix entries.
figure;
for i=1:10
    subplot(2,5,i)
    temp_data = double(data(:,:,i));
    imshow(reshape(cov(temp_data'), [256, 256]), [])
end
```

