

```
function [ meanX, cov, eigVec, eigVal] = compute( digit )
%This function computes all of the calculations needed for problem 5
% Expects a 784x4999 matrix thats holds all of the image data

meanX = mean(digit, 2); %takes mean of the corresponding elements of each Xi
sum = zeros(784,784);
for i = 1:length(digit)
    sum = sum + 1/length(digit)*(digit(:,i) - meanX)*(digit(:,i) - meanX)';
end
cov = sum;

[eigVec, eigVal] = eig(cov);

end
```

Error using compute (line 5)
Not enough input arguments.

Published with MATLAB® R2014b