%-- 2/8/10  3:02 PM --%   
diary feb\_8\_10   
load clown   
whos   
[u,s,v]=svd(X,0);   
plot(diag(s),'.')   
figure(1); imagesc(X); colormap(gray)   
p=8; s1=s(1:p,1:p); u1=u(:,1:p); v1=v(:,1:p); A1=u1\*s1\*v1';   
figure(2); imagesc(A1); colormap(gray)   
norm(A1-X)/norm(X)   
norm(A1-X,'fro')/norm(X,'fro')   
figure(3); plot(diag(s)/s(1,1))   
hold on  
plot(diag(s)/norm(diag(s)), ‘r’)   
p=30; s1=s(1:p,1:p); u1=u(:,1:p); v1=v(:,1:p); A1=u1\*s1\*v1';   
figure(4); imagesc(A1); colormap(gray)   
norm(A1-X,'fro')/norm(X,'fro')   
norm(A1-X)/norm(X)   
%-- 2/10/10  2:30 PM --%   
diary feb\_10\_10   
imread('cameraman.tif')   
A=imread('cameraman.tif');   
whos A   
A=double(A);   
imagesc(A); colormap(gray)   
figure; imagesc(A.^2); colormap(gray)   
figure; imagesc(A.^.5); colormap(gray)   
a=hist(A(:)) ;  
size(a)   
J=histeq(A);   
imagesc(A); colormap(gray)   
imagesc(J); colormap(gray)   
figure; imagesc(A); colormap(gray)