%-- 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)