Solutions, Computer Lab Mar 5

Here is the script file (modified from `clownexample.m`):

```
close all
clear
clc


img=imread('pansy.png');
X=img(:,:,1);

[U,S,V]=svd(X);
% The 100th value:
S(100,100)

% Create a rank-10 approximation
N=10; PartialRecon=U(:,1:N)*S(1:N,1:N)*V(:,1:N)';
figure(1)
imagesc(PartialRecon)

% Create a rank-100 approximation
N=100; PartialRecon=U(:,1:N)*S(1:N,1:N)*V(:,1:N)';
figure(2)
imagesc(PartialRecon)
```

The 100th value was: 37.892.