Table of Contents

Lab 1

This is just a lab setting up MATLAB and loading in some data here we have some initial setup

```
clear; clc;
load("data.mat");
```

Experiment 1

Using a for loop, compute the sum of l_2 norms of the columns of matrix X

```
tic
s = 0;
for i = 1:1000000
    s = s + norm(X(:,i));
end
s
toc
```

```
s =

   1.3805e+06

Elapsed time is 0.615756 seconds.
```

Expriment 2

Don't use the for loop. This took me a while because I don't know how MATLAB works, if there is a cleaner solution, please tell me :)

```
tic
t = sum(sqrt(sum(X.^2)))
toc
```

```
t =

   1.3805e+06

Elapsed time is 0.024920 seconds.
```

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