Hints for Problem 2.4

Python

This time around, the matrix has complex entries. You can load it as follows:

```
import numpy
A = numpy.loadtxt('pset2.txt', dtype=numpy.complex128)
```

To take matrix square roots, use the `sqrtm` function from scipy. You can import it as follows:

```
from scipy.linalg import sqrtm
```

Then you can write `sqrtm(B)` to take the square root of an arbitrary matrix `B`.

Mathematica

To load the matrix with complex entries, you can use the following code:

```
A = Import[NotebookDirectory[] <> "pset2.txt", "Data"];
A = ToExpression[A] /. {j -> I};
```

To take matrix square roots, use `MatrixPower` with the appropriate argument.