PHY 480 - Computational Physics Project 1: Linear Algebra Methods

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Github Repository at https://github.com/ThomasBolden/PHY-480-Spring-2016 Abstract

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Contents

Introduction	2
Methods	2
Results	2
Conclusions	2
Code	2

Introduction

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Methods

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Results

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Conclusions

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Code

../Code/Project1.cpp

```
// Project 1 - Vector and Matrix Operations
1
 2
 3 #include <iostream>
 4 #include <fstream>
 5 #include <cmath>
 6 #include <iomanip>
   #include <string>
   //#include "armadillo"
10
   using namespace std;
   //using namespace arma;
11
   ofstream myfile;
12
13
14
15
   int main(){
16
17
        // -~- Declaration of Variables -~- \\
18
        double n;
19
        string outfilename;
20
21
        cout << "Enter<sub>□</sub>a<sub>□</sub>number:<sub>□</sub>"; // user enters a number
22
23
        cout << "Enteruaunameuforutheuoutputufile:u"; // user enters a name for the output file
24
        cin >> outfilename;
25
26
        // body of the program
```

```
27
28
29
30
        \ensuremath{//} writing value to file, to be read and graphed in python later
        myfile.open(outfilename);
31
        //myfile << setiosflags(ios::showpoint | ios::uppercase); // setting scientific notation
32
        myfile << n << endl;
33
34
        myfile.close();
35
36
37
        return 0;
38
39
   }
```

References

[1]