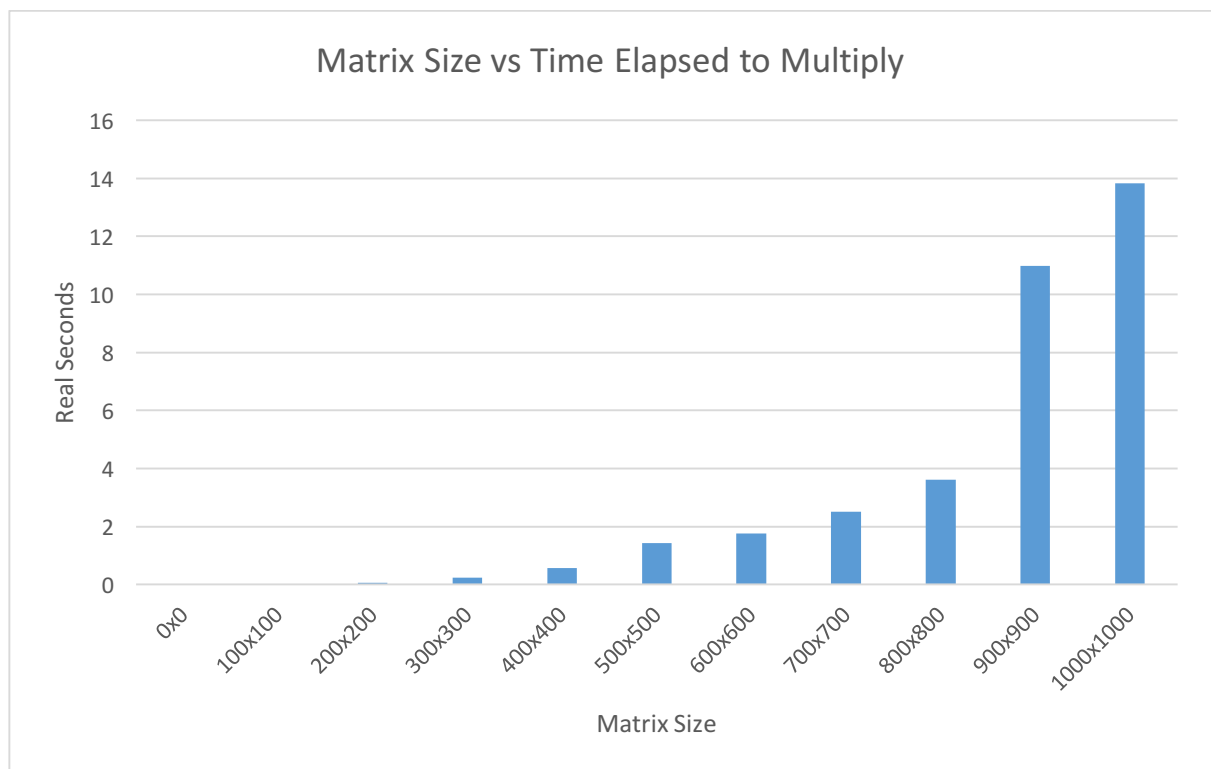


Table:

Size	Seconds
0x0	0
100x100	0.007
200x200	0.06
300x300	0.243
400x400	0.575
500x500	1.419
600x600	1.756
700x700	2.514
800x800	3.605
900x900	10.988
1000x1000	13.829

Graph:



The results show that the real time gets larger as the matrix size increments by 100 rows and 100 columns. After reviewing the graph, we can see that the results show an x^3 relationship. I decided to use 100x100 – 1000x1000 as the limits because, below 100x100, the time was so short that 'noise' would have a significant impact on it, reducing the

accuracy of the report. After 1000x1000, the time taken started to exceed 30 seconds. I didn't print the results when recording the times because the printing function takes time itself, which would further reduce the accuracy of the report. This was done by putting a 0 at the end of the line, causing the main function to avoid the "print matrix" function.

Without putting a 0 at the end, the output would be like:

```
$ time ./matrix 4 4 4
```

```
a is a 4 by 4:
```

```
3  6  7  5
3  5  6  2
9  1  2  7
0  9  3  6
```

```
b is a 4 by 4:
```

```
0  6  2  6
1  8  7  9
2  0  2  3
7  5  9  2
```

```
c is a 4 by 4:
```

```
55  91 107 103
31  68  71  85
54  97  92  83
57 102 123 102
```

```
real  0m0.002s
```

```
user  0m0.000s
```

```
sys   0m0.000s
```