Exercise 4

Data set with n = 10; Average – 100,216 ns

```
X VECTOR: [0.0, 4.0, 5.0, -5.0, -3.0, -2.0, -4.0, 2.0, 1.0, -1.0]
Y VECTOR: [181.0, -73.0, -445.0, -167.0, -287.0, -50.0, 201.0, -32.0, 218.0, 185.0]
Enter 'q' to quit
-5
-166.99999999999955
Elapsed Time: 117200 nanoseconds
0
181.0
Elapsed Time: 61000 nanoseconds
12
-8.03696918888896E7
Elapsed Time: 84600 nanoseconds
100
-1.496950309675142E16
Elapsed Time: 104800 nanoseconds
-12345
9.395812105099538E34
Elapsed Time: 157500 nanoseconds
14.5
-4.630130713003888E8
Elapsed Time: 76200 nanoseconds
```

Data set with n = 100; Average – 303,933 ns

```
X VECTOR: [21.0, 19.0, -8.0, 47.0, 18.0, -38.0, -32.0, -16.0, -7.0, -50.0, -44.0, -9.0, -48.0, -37.0, 44.0, 0.0, -17.0, 15.0, -41.0, 1.0, -42.0, -33.
Y VECTOR: [-270.0, -40.0, -137.0, -58.0, -446.0, 339.0, 267.0, -102.0, 104.0, 4.0, -306.0, -347.0, -32.0, -95.0, -161.0, -166.0, -61.0, 197.0, 247.0,
Enter 'q' to quit
-5
49.000000000005286
Elapsed Time: 314500 nanoseconds
0
-165.99999999994753
Elapsed Time: 260700 nanoseconds
12
75.99986985592875
Elapsed Time: 279300 nanoseconds
100
1.0627563686617175E70
Elapsed Time: 375500 nanoseconds
-12345
-1.154802669011945E279
Elapsed Time: 316500 nanoseconds
14.5
228.44875987850298
Elapsed Time: 277100 nanoseconds
```

Data set with n = 1000; Average – 3,175,866 ns

```
X VECTOR: [-346.0, -44.0, -246.0, 368.0, -123.0, -381.0, 92.0, 251.0, 290.0, 54.0, 373.0, -151.0, 465.0, 181.0, 490.0, 398.0, -202.0, 151.0, 390.0,
Y VECTOR: [29.0, -31.0, 118.0, 238.0, -167.0, -26.0, 115.0, -256.0, -173.0, -245.0, -359.0, 38.0, 10.0, -175.0, 140.0, 15.0, -243.0, -8.0, 198.0, 182
Enter 'q' to quit
-5
7.112504412642955E8
Elapsed Time: 10416700 nanoseconds
0
-3.106037332850974E7
Elapsed Time: 1943200 nanoseconds
12
-8.150049050065967E7
Elapsed Time: 1411200 nanoseconds
100
534.4193753987319
Elapsed Time: 1718200 nanoseconds
-12345
1.3715017534905816E266
Elapsed Time: 1866000 nanoseconds
14.5
-7.444490401402053E7
Elapsed Time: 1699900 nanoseconds
```