**Test #1:**

parallels@ubuntu:~/Assembly/ArrayProcessing$ ./compiler

Welcome to Basic Statistics by Art Grichine!

This is Assignment 5 of CPSC 240 at CSUF.

Please enter the data of your sample set one value at a time.

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 3.5

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.7

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 1.4

Do you have more data for an array (Y or N)? n

Those inputs produced these statistics:

Geometric length is: 7.687652438

Arithmetic mean is: 3.866666667

Harmonic mean is: 2.610389610

Variance of data: 4.748888889

The data have been sorted as follows:

1.400000000000000

3.500000000000000

6.700000000000000

The median value is: 3.500000000

Come back again and enjoy more statistics. The median will be sent back to the driver.

The driver received this value: 3.500000000.

Now the driver will return control to the operating system.

**Test #2:**

parallels@ubuntu:~/Assembly/ArrayProcessing$ ./compiler

Welcome to Basic Statistics by Art Grichine!

This is Assignment 5 of CPSC 240 at CSUF.

Please enter the data of your sample set one value at a time.

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 1.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 3.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 4.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 5.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 7.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 8.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 9.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 10.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 11.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 12.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 13.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 14.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 15.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 16.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 17.0

Do you have more data for an array (Y or N)? n

Those inputs produced these statistics:

Geometric length is: 42.201895692

Arithmetic mean is: 9.437500000

Harmonic mean is: 5.443005313

Variance of data: 22.246093750

The data have been sorted as follows:

1.000000000000000

3.000000000000000

4.000000000000000

5.000000000000000

6.000000000000000

7.000000000000000

8.000000000000000

9.000000000000000

10.000000000000000

11.000000000000000

12.000000000000000

13.000000000000000

14.000000000000000

15.000000000000000

16.000000000000000

17.000000000000000

The median value is: 9.500000000

Come back again and enjoy more statistics. The median will be sent back to the driver.

The driver received this value: 9.500000000.

Now the driver will return control to the operating system.

**Test #3:**

parallels@ubuntu:~/Assembly/ArrayProcessing$ ./compiler

Welcome to Basic Statistics by Art Grichine!

This is Assignment 5 of CPSC 240 at CSUF.

Please enter the data of your sample set one value at a time.

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: -2.02

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 3.52

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: -4.09

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.33

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: -14.77

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 9.99

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: -0.03

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 1.05

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: -100.0

Do you have more data for an array (Y or N)? n

Those inputs produced these statistics:

Geometric length is: 101.942749620

Arithmetic mean is: -11.113333333

Harmonic mean is: -0.275599887

Variance of data: 1031.196511111

The data have been sorted as follows:

-100.000000000000000

-14.770000000000000

-4.090000000000000

-2.020000000000000

-0.030000000000000

1.050000000000000

3.520000000000000

6.330000000000000

9.990000000000000

The median value is: -0.030000000

Come back again and enjoy more statistics. The median will be sent back to the driver.

The driver received this value: -0.030000000.

Now the driver will return control to the operating system.

**Test #4:**

parallels@ubuntu:~/Assembly/ArrayProcessing$ ./compiler

Welcome to Basic Statistics by Art Grichine!

This is Assignment 5 of CPSC 240 at CSUF.

Please enter the data of your sample set one value at a time.

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 3.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 5.5

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: -4.4

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: -0.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 2.2

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 7.0

Do you have more data for an array (Y or N)? n

Those inputs produced these statistics:

Geometric length is: 10.604244433

Arithmetic mean is: 1.662500000

Harmonic mean is: -nan

Variance of data: 11.292343750

The data have been sorted as follows:

-4.400000000000000

0.000000000000000

0.000000000000000

-0.000000000000000

2.200000000000000

3.000000000000000

5.500000000000000

7.000000000000000

The median value is: 1.100000000

Come back again and enjoy more statistics. The median will be sent back to the driver.

The driver received this value: 1.100000000.

Now the driver will return control to the operating system.

**Test #5:**

parallels@ubuntu:~/Assembly/ArrayProcessing$ ./compiler

Welcome to Basic Statistics by Art Grichine!

This is Assignment 5 of CPSC 240 at CSUF.

Please enter the data of your sample set one value at a time.

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.0

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 6.0

Do you have more data for an array (Y or N)? n

Those inputs produced these statistics:

Geometric length is: 13.416407865

Arithmetic mean is: 6.000000000

Harmonic mean is: 6.000000000

Variance of data: 0.000000000

The data have been sorted as follows:

6.000000000000000

6.000000000000000

6.000000000000000

6.000000000000000

6.000000000000000

The median value is: 6.000000000

Come back again and enjoy more statistics. The median will be sent back to the driver.

The driver received this value: 6.000000000.

Now the driver will return control to the operating system.

**Test #6:**

parallels@ubuntu:~/Assembly/ArrayProcessing$ ./compiler

Welcome to Basic Statistics by Art Grichine!

This is Assignment 5 of CPSC 240 at CSUF.

Please enter the data of your sample set one value at a time.

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.00000090

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.00000083

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.00000077

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.00000021

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.00000006

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.00000051

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 0.00000012

Do you have more data for an array (Y or N)? n

Those inputs produced these statistics:

Geometric length is: 0.000001554

Arithmetic mean is: 0.000000486

Harmonic mean is: 0.000000198

Variance of data: 0.000000000

The data have been sorted as follows:

0.000000060000000

0.000000830000000

0.000000770000000

0.000000510000000

0.000000210000000

0.000000120000000

0.000000900000000

The median value is: 0.000000510

Come back again and enjoy more statistics. The median will be sent back to the driver.

The driver received this value: 0.000000510.

Now the driver will return control to the operating system.

**Test #7:**

parallels@ubuntu:~/Assembly/ArrayProcessing$ ./compiler

Welcome to Basic Statistics by Art Grichine!

This is Assignment 5 of CPSC 240 at CSUF.

Please enter the data of your sample set one value at a time.

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 3000000.3

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 7000000.9

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 4000000.4

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 11000000.7

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 10000000.1

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 5000000.2

Do you have more data for an array (Y or N)? Y

Enter a float number and press enter: 2000000.3

Do you have more data for an array (Y or N)? n

Those inputs produced these statistics:

Geometric length is: 18000001.061111126

Arithmetic mean is: 6000000.414285714

Harmonic mean is: 4328738.231764290

Variance of data: 10285714771428.640625000

The data have been sorted as follows:

2000000.300000000046566

3000000.299999999813735

4000000.399999999906868

5000000.200000000186265

7000000.900000000372529

10000000.099999999627471

11000000.699999999254942

The median value is: 5000000.200000000

Come back again and enjoy more statistics. The median will be sent back to the driver.

The driver received this value: 5000000.200000000.

Now the driver will return control to the operating system.

parallels@ubuntu:~/Assembly/ArrayProcessing$ ls -l

total 1076

-rw-rw-r-- 1 parallels parallels 2969 Apr 3 18:44 ArrayProcessingDriver.cpp

-rw-rw-r-- 1 parallels parallels 2921 Apr 2 16:56 ArrayProcessingDriver.cpp~

-rw-rw-r-- 1 parallels parallels 1864 Apr 3 19:44 ArrayProcessingDriver.o

-rw-rw-r-- 1 parallels parallels 7404 Apr 3 18:46 ArrayProcessingInputArray.asm

-rw-rw-r-- 1 parallels parallels 7412 Apr 3 16:54 ArrayProcessingInputArray.asm~

-rw-rw-r-- 1 parallels parallels 27390 Apr 3 19:44 ArrayProcessingInputArray.lis

-rw-rw-r-- 1 parallels parallels 2128 Apr 3 19:44 ArrayProcessingInputArray.o

-rw-rw-r-- 1 parallels parallels 16970 Apr 3 18:46 ArrayProcessingMain.asm

-rw-rw-r-- 1 parallels parallels 16977 Apr 3 18:41 ArrayProcessingMain.asm~

-rw-rw-r-- 1 parallels parallels 49752 Apr 3 19:44 ArrayProcessingMain.lis

-rw-rw-r-- 1 parallels parallels 4352 Apr 3 19:44 ArrayProcessingMain.o

-rwxrwxr-x 1 parallels parallels 29470 Apr 3 19:44 ArrayProcessing.out

-rwxrwxrwx 1 parallels parallels 1478 Apr 3 17:49 compiler

-rwxrwxrwx 1 parallels parallels 1480 Apr 3 17:45 compiler~

-rw-rw-r-- 1 parallels parallels 3663 Apr 2 17:39 computelength.cpp

-rw-rw-r-- 1 parallels parallels 3663 Apr 2 17:39 computelength.cpp~

-rw-rw-r-- 1 parallels parallels 1600 Apr 3 19:44 computelength.o

-rw-rw-r-- 1 parallels parallels 3170 Apr 2 17:18 computemean.cpp

-rw-rw-r-- 1 parallels parallels 3170 Apr 2 17:18 computemean.cpp~

-rw-rw-r-- 1 parallels parallels 1448 Apr 3 19:44 computemean.o

-rw-rw-r-- 1 parallels parallels 3859 Apr 2 17:18 computemedian.cpp

-rw-rw-r-- 1 parallels parallels 3404 Apr 2 17:09 computemedian.cpp~

-rw-rw-r-- 1 parallels parallels 2088 Apr 3 19:44 computemedian.o

-rw-rw-r-- 1 parallels parallels 129213 Feb 27 14:51 debug.asm

-rw-rw-r-- 1 parallels parallels 129213 Feb 27 14:31 debug.asm~

-rw-rw-r-- 1 parallels parallels 7314 Feb 27 14:31 debug.inc

-rw-rw-r-- 1 parallels parallels 255365 Feb 27 14:31 debug.lis

-rw-rw-r-- 1 parallels parallels 21584 Feb 27 14:31 debug.o

-rw-rw-r-- 1 parallels parallels 6113 Apr 3 18:46 harmonicmean.asm

-rw-rw-r-- 1 parallels parallels 6121 Apr 2 18:17 harmonicmean.asm~

-rw-rw-r-- 1 parallels parallels 23907 Apr 3 19:44 harmonicmean.lis

-rw-rw-r-- 1 parallels parallels 1280 Apr 3 19:44 harmonicmean.o

-rw-rw-r-- 1 parallels parallels 5700 Apr 3 18:46 outputarray.asm

-rw-rw-r-- 1 parallels parallels 5708 Apr 2 18:28 outputarray.asm~

-rw-rw-r-- 1 parallels parallels 23638 Apr 3 19:44 outputarray.lis

-rw-rw-r-- 1 parallels parallels 1440 Apr 3 19:44 outputarray.o

-rw-rw-r-- 1 parallels parallels 3377 Apr 3 19:44 partition.cpp

-rw-rw-r-- 1 parallels parallels 3377 Apr 3 19:44 partition.cpp~

-rw-rw-r-- 1 parallels parallels 1648 Apr 3 19:44 partition.o

-rw-rw-r-- 1 parallels parallels 2780 Apr 3 19:33 quicksort.cpp

-rw-rw-r-- 1 parallels parallels 2641 Apr 3 18:54 quicksort.cpp~

-rw-rw-r-- 1 parallels parallels 1400 Apr 3 19:44 quicksort.o

-rw-rw-r-- 1 parallels parallels 6052 Apr 3 18:47 reciprocalarray.asm

-rw-rw-r-- 1 parallels parallels 6060 Apr 2 18:03 reciprocalarray.asm~

-rw-rw-r-- 1 parallels parallels 23642 Apr 3 19:44 reciprocalarray.lis

-rw-rw-r-- 1 parallels parallels 1168 Apr 3 19:44 reciprocalarray.o

-rw-rw-r-- 1 parallels parallels 3034 Apr 3 19:38 recursivequick.cpp

-rw-rw-r-- 1 parallels parallels 2707 Apr 3 18:54 recursivequick.cpp~

-rw-rw-r-- 1 parallels parallels 1512 Apr 3 19:44 recursivequick.o

-rw-rw-r-- 1 parallels parallels 5605 Apr 3 18:47 squarearray.asm

-rw-rw-r-- 1 parallels parallels 5613 Apr 2 18:05 squarearray.asm~

-rw-rw-r-- 1 parallels parallels 22999 Apr 3 19:44 squarearray.lis

-rw-rw-r-- 1 parallels parallels 1120 Apr 3 19:44 squarearray.o

-rw-rw-r-- 1 parallels parallels 5129 Apr 3 18:47 sumarray.asm

-rw-rw-r-- 1 parallels parallels 5137 Apr 2 17:27 sumarray.asm~

-rw-rw-r-- 1 parallels parallels 22323 Apr 3 19:44 sumarray.lis

-rw-rw-r-- 1 parallels parallels 1120 Apr 3 19:44 sumarray.o

-rw-rw-r-- 1 parallels parallels 4370 Apr 3 17:52 swap.asm

-rw-rw-r-- 1 parallels parallels 4376 Apr 3 16:56 swap.asm~

-rw-rw-r-- 1 parallels parallels 21084 Apr 3 19:44 swap.lis

-rw-rw-r-- 1 parallels parallels 1024 Apr 3 19:44 swap.o

-rw-rw-r-- 1 parallels parallels 6140 Apr 4 11:20 variance.asm

-rw-rw-r-- 1 parallels parallels 6156 Apr 4 11:19 variance.asm~

-rw-rw-r-- 1 parallels parallels 24014 Apr 4 12:03 variance.lis

-rw-rw-r-- 1 parallels parallels 1152 Apr 4 12:03 variance.o