In-class Practice - FillAndSortArrayMethodArgs

Create class **FillAndSortArrayMethodArgs**

FillAndSortArrayMethodArgs should consist of 3 methods:

1. **main**, which should
   - Gather 3 arguments from the command line
     - Argument 1: the number of random numbers the user desires
     - Argument 2: the low end of the range of random numbers the user desires
     - Argument 3: the high end (exclusive) of the range of random numbers the user desires
     - Note: You may assume there will always be 3 numbers and that the first will be an integer.
   - Create an array of doubles of the desired size
   - Call **fillArrayRandom()** to fill array with random numbers
   - Call **Arrays.sort()** to sort array
   - Call **printArray()** to print array

   Note: To convert the first command-line argument from a **String** to an **int**, use **Integer.parseInt()**. Similarly, use **Double.parseDouble()** to convert a **String** to a **double**. Converting strings to numbers is briefly discussed on page 53 of your text and about command-line arguments in section 4.3.6.

2. **void fillArrayRandom(double [] array, double low, double high)**, which should fill array with random numbers in the range [low, high). As in **FillAndSortArray**, use **Random random = new Random(1234);** to create the Random object and obtain your random numbers with **random.nextDouble()**.

3. **void printArray(double [] array)**, which should print out array elements, one per line, using either **println()**, or **printf()** with a "**%s**" format specifier. Use a <u>for each loop</u> for printing.

Be sure to add Javadoc comments for both the program and the two methods.

```
MyPrompt> java FillAndSortArrayMethodArgs 6 3.4 3.6
3.4407749563906265
3.467190480508339
3.4916466610125343
3.5293164320581853
3.571517691961367
3.5902715421838787
```

Example run

```
MYPROMPT> java -cp AutoGrade.jar;. AutoGrade2 FillAndSortArrayMethodArgs
Compilation is successful
Checking method fillArrayRandom(array, 85.0, 119.0)
Method fillArrayRandom(array, 85.0, 119.0) works correctly.
Checking method printArray()
Method printArray() OK

Run as: java FillAndSortArrayMethodArgs 11 85.0 119.0

Array is correct length (11)
Right Answer:
"85.54059863437195
91.93174258640647
96.4223816864176
96.79485257714902
98.8222484935737
100.5799323721308
105.9886784479083
106.98379344989146
114.15800763343233
117.19322552444919
117.34616217125932"
Your Answer:
"85.54059863437195
91.93174258640647
96.4223816864176
96.79485257714902
98.8222484935737
100.5799323721308
105.9886784479083
106.98379344989146
114.15800763343233
117.19322552444919
117.34616217125932"

Score:   100%
```

After you feel your program is correct, further test your program, by obtaining AutoGrade.jar from this assignment. Put it and a copy of your FillAndSortArrayMethodArgs.java in the same directory. Then run it as shown in the example.

When your program works correctly, submit it.