CSCI423/501 Programming Assignment 3

Write a multithreaded program that calculates various statistical values for a list of numbers. This program will be passed a series of numbers on the command line and will then create three separate worker threads. One thread will determine the average of the numbers, the second will determine the minimum value, and the third will determine the maximum value. Perform necessary error checking to ensure that at least one integer is passed on the command line. Following are two running examples, assuming the compiled program named c.out:

Example 1:

```
./c.out 90 81 78 95 79 72 85
The average value is 82
The minimum value is 72
The maximum value is 95
```

Example 2:

```
./c.out
Usage: ./c.out <at least one integer as input>
```

The variables representing the average, minimum, and maximum values will be stored globally. The worker threads will set these values, and the parent thread will output the values once the workers have exited.

NOTE: your program should be able to accept arbitrary number of numbers as input.