Assignment #1

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Understanding the Problem

Determine the ranges of **short, int and long** by printing the constants from the **Short, Integer and Long** classes and by direct computation. Add one to the max value of each and print the result.

Devising a Plan/Design

The classes **Short, Integer and Long** all have a MAX_VALUE and MIN_VALUE constant. I will use these to get the range from the classes.

They also have a SIZE constant which is the maximum number of bits each has to represent a value. So by raising 2^SIZE and then dividing by two I get the full positive and negative values.

Looking Back/Self-Reflection

Type casting was harder than I expected. It was really a pain to make sure overflow errors didn't affect the output. You have to know what your data is going to be as you cast/use it to make sure it is specified as the correct type from the get go.

I checked the output values to the max/min/size values reported in:

- http://docs.oracle.com/javase/1.4.2/docs/api/java/lang/Long.html
- http://docs.oracle.com/javase/1.4.2/docs/api/java/lang/Integer.html
- http://docs.oracle.com/javase/1.4.2/docs/api/java/lang/Short.html