CSC 473
Lab 4 - Profiling

Due: Tuesday May 17th by the end of lab

Overview
The goal for this lab is to establish a base speed for your raytracer prior to introducing a spatial data structure. In general, by the end of this lab, you should be able to list speeds for your raytracer execution for two files:

recurses.pov
ball2.pov

All timings will be computed on the machines in 127. If you are off campus, first log into unix – then log into: username@127x##.csc.calpoly.edu (where ## is replaced with a numerical value between: 01-31.

To complete the lab you will need to profile your code. Please use gprof to do so – one reference is:
http://web.eecs.umich.edu/~sugih/pointers/gprof_quick.html

Please complete the google form sent out:
https://docs.google.com/forms/d/1iGPEJl7XeX0K0P6SG5ei4NrhOxtHsUDVfr5eXiWb
Wzo/viewform

All timings and profiling should be run **without anti-aliasing!**
And all timings should be recorded while not profiling.

In general, consider your code and make sure you are not doing anything unnecessary more then need be. Also be sure to compile with optimizations – that is include –O3 as a flag to your Makefile or with the provided cmake file compile in
Eigen Release mode: cmake -DCMAKE_BUILD_TYPE=Release .

In general, the form asks for:

Name
Run time on recurses.pov
Run time on balls2.pov
Profiling - top function name
Profiling - top function percentage of time
Profiling - top function "self seconds"
Profiling - top function "number of calls"
Profiling - second highest function name
Profiling - second highest function percentage of time

Profiling - second highest "self seconds"
Profiling - second highest "number of calls"
Profiling - third highest function name
Profiling - third highest function percentage of time
Profiling - third highest "self seconds"
Profiling - third highest "number of calls"