Requirements:

- Write a WebGL program that allows user to view, zoom and rotate obj model (Fig. 1). Name your source code `hw2.html` and `hw2.js`. The program should meet the following requirements:
  - First, see the accompanying video posted on Canvas. Your program must basically look and work the same as in the video.
  - The program must access and visualize `sphere.obj` with URL: `http://www.cs.umsl.edu/~kang/htdocs/models/sphere.obj`
  - The program, through `dat.gui` menu, must provide at least 3 options for texture/normal maps.
  - Use your own collection of texture/normal map pairs. What's shown in the video is just an example.
  - You can find many interesting seamless texture map & normal map pairs via Google search (e.g., `http://www.everytexture.com`).
  - Use high-resolution images to clearly reveal the texture and normal details.
  - Install and run *Chrome Web Server* so your program can access local files. Refer to *chrome_webserver.pdf*.
  - The program must also provide 2 checkboxes to toggle texture map and normal map on/off, respectively.
  - When only normal map is on, use default color (such as white) to reveal the pure geometric detail on surface.
  - User should be able to switch freely from one texture/normal pair to another without problem.
  - Make sure your images are in a proper location within your submission. After beging unzipped, your program (.html) must run as is.

What to submit:

- Submit all your **source files (.html, .js)** that are needed for compilation, including **library files/folders**. *Missing library files/folders will incur point deduction.*
- Make sure your **library folder/files** are in the right location relative to your main program (.html), such that when your main program (.html) is clicked as is, it should run without problem. *Failure to do so will incur point deduction.*

How to submit:

- Use Canvas Assignment Submission system to submit your source files.

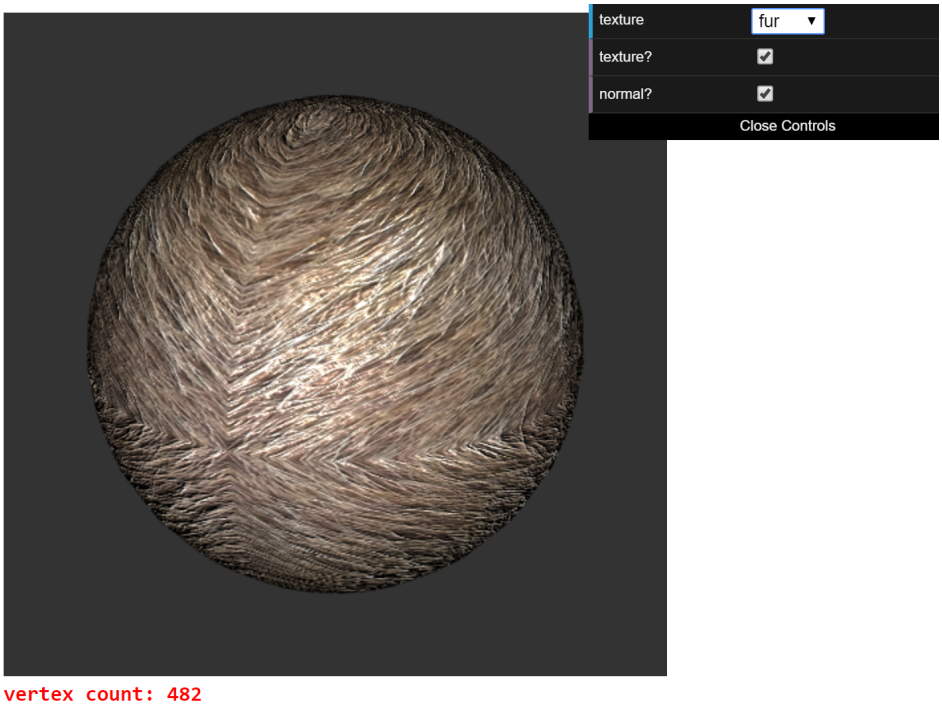

Figure 1: normal map viewer

- Make sure to zip all your files/folders into `hw2.zip`, then submit your `hw2.zip` as a single file.

Policy

- Do all the assignments on *Chrome Development Tools* using HTML, JavaScript, and GLSL ES.
- At the top of each source file, provide comments specifying the author, date, and a brief description of the file.
- Source code must contain enough comments here and there to make it easy enough to follow. Insufficient comments could lead to point deduction.
- Incomplete program will get almost no credit (e.g., program does not run due to compile errors or program terminates prematurely due to run-time errors).
- *Thou shall not covet thy neighbor's code*. If identical (or nearly identical) submissions are found among students, every student involved will get automatic zero for the assignment. The same goes for copying existing code from online source.
- If a student makes multiple submissions, only the last submission will be considered valid.