1.1 Describe in your own words how the web works! In as much detail as you can, describe **all** the sequences of events that take place from the time a user presses Enter on the keyboard after typing in [www.rpi.edu](http://www.rpi.edu) into the address bar to when the webpage is finished rendering in the browser. Specifically, tell me in great detail the protocols in action. (10 points)

After entering [www.rpi.edu](http://www.rpi.edu) the browser checks its cache to find the corresponding IP address for the URL. If the cache doesn’t have that information then the browser makes a DNS request to a DNS server instead. After finding the IP address the browser engages in TCPs three way handshake with the server. First sending a sync request, which is responded to with a sync acknowledge from the server, and lastly sending an acknowledge response from the user. After this the browser attempts to get the contents of the webpage with an http GET request. The server responds wither with an error or the page content. The browser loads the pages HTML, then CSS and JS.

1.2 What is the difference between a property and a method in JavaScript? (3 points)

Methods are actions being done to the object. Properties are variables defined for the object such as color. A method like setColor would change the objects color by changing the property color.

1.3 Explain how your browser chooses which CSS rule to apply to a tag in the case where there are multiple rules that could apply. (3 points)

CSS is applied in order of specificity. The last stated rule trumps rules made earlier. Rules that are more specific to the item trump broader rules. For example, a rule made setting the font size for the body would be trumped by a rule setting it for a specific paragraph. Rules made inline trump rules made in a separate CSS file.

1.4 State **four** total advantages of “separation of concerns,” for any permutations of that term we discussed in class. (4 points)

Separation of concerns makes your code more readable. Having everything separate allows the reader to know where to look for certain things. It allows for reuse of CSS or Javascript. A separate CSS or JS file can be reused throughout a project instead of copying the same CSS and JS in every new html file. Having separate files makes it easier for you to update your code. It also makes it easier for multiple people to work on one project. Having separate files means that people working in a group can more easily separate work, with some working on the CSS or JS file.