

**Q1)** Engineering standards are important because engineers are not lone wolves. They need to work with other people if they want to solve difficult problems. Standards are good tools that engineers use to communicate with their peers and to transfer common knowledge to the next generation of engineers.

**Q2)** *730-2014 - IEEE Standard for Software Quality Assurance Processes:*

This standard is for software management. It is meant to be used by software engineers who are working on long term projects because it goes hand in hand with the software lifecycle process.

*61691-1-1-2011 - IEC/IEEE International Standard - Behavioural languages - Part 1-1: VHDL Language Reference Manual:*

This is the reference manual for VHDL. It is intended to be used by advanced hardware designers and VHDL language implementors.

*IEEE Standard for the Scheme Programming Language:*

This is a specification for the Scheme Programming Language. It is supposed to be a documentation that Scheme implementors can use to implement and verify that their implementation conforms to the Scheme standard.

**Q3)** The standard for the Scheme programming language is the most important standard that will help us with our project because the back-end of our language is going to be a Scheme implementation. The VHDL standard has some relevance to our project because it covers language design, but it not very relevant. The software assurance standard is very relevant to our project because the code base of our project will reach a point where we will have to take software assurance very seriously.

**Q4)** The standard that one of my team members chose which I didn't that stood out to me was the floating point standard. We will be using this standard once our programming language can bootstrap itself because we will not be borrowing floating point features from the underlying implementation language.

**Q5)**

- We have been following a software quality assurance standard, so we don't need to add anything new to the quality assurance section of our project plan.
- Even though we have not designed a syntax for our language; after skimming the VHDL Reference Manual, we have decided that the statements of our language will end in semicolons.
- We intend to make a lot of modifications to our project plan based on the Scheme Programming. For example, our implementation does not implement the null list or the derived expressions. These are things we will need to add to our language.