CSE 262: Quiz #4  
Due November 4th, 2022 at 11:59 PM

The quiz has TWO questions. Please submit your answer by updating this file in the quizzes folder of your Bitbucket account, and then committing and pushing. You should use as much space as you want for each answer. Please be detailed in your answers. Remember: this quiz is worth 9% of your grade, and you will not receive very many points if you do not give detailed answers.

**Question 1:** In Scheme, let is syntactic sugar. Explain how it is possible to get the equivalent of scoped variables without let. Give a code example with let, and then re-write it to the equivalent code without let. Then discuss whether you think it is worth it for Scheme to have added let.

**Question 2:** It has been said that null is a “billion dollar mistake”. Modern functional languages (and also languages like Rust) do not have null; instead they use things like Option<>. How does this work? How does it solve the problem(s) with null? Give a code example, and discuss the implications of **not** having null, both the positive and the negative.