## **CSE 390Z: Mathematics for Computation Workshop**

## QuickCheck: Propositional Logic

Please submit a response to the following questions on Gradescope. We do not grade on accuracy, so please submit your best attempt. You may either typeset your responses or hand-write them. Note that hand-written solutions must be legible to be graded.

We have created **this template** if you choose to typeset with Latex. **This guide** has specific information about scanning and uploading pdf files to Gradescope.

## 0. Propositional Logic

Consider the sentence: "I do not eat pizza, or I buy groceries, or if I buy groceries then I eat pizza."

- (a) Define two atomic propositions. Then use the propositions to translate the sentence into logical notation.
- (b) Use a truth table to show that the sentence is always true.

## 1. Video Solution

Watch this video on the solution after making an initial attempt. Then, answer the following questions.

- (a) What is one thing you took away from the video solution?
- (b) What topic from the quick check or lecture would you most like to review in workshop?