CSE 390Z: Mathematics for Computation Workshop

QuickCheck: Set Theory Proof (due Monday, November 9th)

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. Set Proof: A Complement Makes all the Difference

Consider the following statement: For sets A, B:

$$A \cap \overline{(A \setminus B)} = A \cap B$$

.

Prove the statement using a set equality English proof.

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?