

CSE 390z: Mathematics for Computation Workshop

QuickCheck: 9. Irregular Languages (due Tuesday, June 2, 10 AM)

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. Irregular Languages

Consider the language $L = \{0^a 1^b 2^c : a, b, c \geq 1, a \neq c\}$ over the alphabet $\Sigma = \{0, 1, 2\}$. Prove that L is irregular.

1. Video Solution

Watch [this](#) solution video **after** making an initial attempt. Then, answer the following questions.

- (a) What is one thing you took away from the video solution?