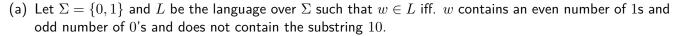
## CSE 390z: Mathematics for Computation Workshop

## QuickCheck: DFAs and NFAs (due Monday, March 10)

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. Constructing DFAs and NFAs



Give a DFA to accept strings in  ${\cal L}.$ 

(b) Let  $\Sigma = \{0, 1, 3, 9\}$  and L be the language over  $\Sigma$  such that  $w \in L$  iff. The string "311" is a substring of w.

Give an NFA to accept strings in L.

## 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?
- (b) What topic from the quick check or lecture would you most like to review in workshop?
- (c) Optional: How did you like the Imposter Syndrome Workshop? Any feedback for future quarters?