

## CSE 390Z: Mathematics for Computation Workshop

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### QuickCheck: 4. Number Theory Proof (due Tuesday, April 28, 9 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. Mod Madness

Write an English proof of the following statement:

For integers  $a, b, m, n$  with  $m, n > 1$ , if  $n|m$  and  $a \equiv_m b$ , then  $a \equiv_n b$ .

#### 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?