

## CSE 390Z: Mathematics for Computation Workshop

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### QuickCheck: Induction (due Sunday, November 13)

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. Induction

Prove by induction that for all integers  $n \geq 1$ :

$$\sum_{i=1}^n 5i = \frac{5n(n+1)}{2}$$

#### 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 is one way you plan to (or already have) prepared for the 311 midterm?