# hw2$_r$eflection

Jordan Ye

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**In retrospect, what could you have done better to reduce the time you spent solving this homework?** I believe I could have spent more time planning my approach before diving into coding. In particular, a clearer initial outline of the loop invariant, variant function, and overall structure of the proofs would have allowed me to avoid reworking sections multiple times.

**What could we, the teaching staff, have done better to improve your learning experience in this homework?** It would have been helpful to have additional examples of similar problems, particularly ones that illustrate the process of formulating invariants and proving them in Dafny. More detailed feedback on previous assignments would also help me understand where I can improve my reasoning especially on HW 2 where I felt I was provided inadequate feedback.

**What do you know now that you did not know before beginning the homework?** I now have a much deeper understanding of formal verification in Dafny. I learned how to rigorously define loop invariants and decrementing functions, and how to use these concepts to formally prove the correctness and termination of an algorithm