

# Math 113(2) - Comments for HW1

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Some general comments:

1. Please use staplers or clips, not just fold the left-upper corner of papers!
2. Try to write well! - maybe this will be harder than the first one...
3. If you can, try to use  $\LaTeX$ .
4. For questions that requires proofs, I almost not give any partial credits.

## Section 0, Problem 12

Some of students only give answers without any reasons. I gave full credits (if the answer is correct), but you should write reasons for later homework (although it seems trivial). For example, for a),  $f$  is not one-to-one since  $f(1) = 4 = f(2)$ . -1 points for each wrong answer.

## Section 0, Problem 32

You should give at least one counterexample for the failure of the transitivity, or I deducted 1 point.

## Section 1, Problem 37

You can show that the map isn't injective ( $\zeta$  and  $\zeta^4$  both map to 2) or not surjective (you can check that  $1, \zeta, \zeta^2, \dots, \zeta^5$  go to  $0, 4, 2, 0, 4, 2$ , so  $1, 3, 5$  aren't in the image). 0 point for strange arguments.