

Optional Bonus Problems (Worth 1 Homework Point Each):

Turn in your solution to any of the problems below by 10/30/2013. To receive credit for a problem, your work must be completely flawless.

In other words, *all or nothing*.

Please work individually on these, and do not seek help from any sources other than me.

- (1) Let G be a group and let H be a subgroup of G . For elements $a, b \in G$, write $a \sim b$ if and only if $aH = bH$. Show that “ \sim ” is an equivalence relation on G . How does this relation partition G ?
- (2) Chap. 7, problem 38.