MATH 313 HOMEWORK 7, FALL 2015

DUE AT THE BEGINNING OF CLASS ON THURSDAY, OCTOBER 15

One goal for this course is for you to develop your skill in effectively communicating mathematics. With this in mind, you should clearly write up your solutions. Solutions with little or no justification will receive little or no credit.

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(1) Make sure you have read through section 11 Part 2 of the Gallian textbook.

(2) Re-read the four lemmas making up the proof of the Fundamental Theorem of Finite Abelian Groups.

(3) Please do the following on one document.

    (a) Do problem 35 from page 236, explaining your reasoning, and briefly explain how this finishes the proof of Lemma 2.

    (b) Explain why Lemma 4 is needed to complete the proof of the Fundamental Theorem.

    (c) In a few sentences, (more if you like), explain your understanding of the main argument of the proof of Lemma 4. If there are assertions you do not understand, make a note of these.

(4) On a second document, do problems 4, 10, 11, 16, and 30 from pages 234 - 236.