

## ERRATA: CONCEPTS IN ABSTRACT ALGEBRA by Charles Lanski

### CHAPTER 0

- §0.4 p. 27 Add "we" in the sentence before Theorem 0.5: "... complete and we ...".
- §0.5 p. 35 In the eleventh line from the page bottom, the " $Dom f$ " should be " $Im f$ ".
- §0.6 p. 38 In the line before Fig.0.8 the " $s$ " in  $|f^{-1}(\{s\})| \leq 1$  should be a " $t$ ".
- p. 41 In the line just above Theorem 0.12, "Theorem" is misspelled as "Thoerem".

### CHAPTER 1

- p.57 Eight larger summations ( $\Sigma$ ) in the proof of Theorem 1.8 are needed.
- p.79 Two larger summations ( $\Sigma$ ) in the corollary of Theorem 1.24 are needed.
- p.116 A larger summation ( $\Sigma$ ) in Exercise 1a) is needed.
- §1.4 p.68 In Exercise 3i replace " $p > 3$ " with " $p > 5$ ".
- §1.4 p.69 In Exercise 15 the last " $|$ " should be slanted (a solidus):  $[[n/p^i]/p]$ .
- §1.6 p.73 In the first line "congurence" should be "congruence".
- §1.8 p.90 In Exercise 4b add "is prime" after  $p > 2$ : If  $p > 2$  is prime, ...

### CHAPTER 2

- §2.1 p.98 In second line above Example 2.2, "that" should be "then".
- §2.6 p. 119 In the line after Theorem 2.15, "examble" should be "example".

### CHAPTER 3

- §3.2 p.132 In the first of Example 3.3 change  $o\langle [2] \rangle$  to  $o([2])$ .
- §3.3 p.133 In Exercise 6 change the first 3 to 1 (For  $m \geq 1$ , prove ...), and also add "when  $m \geq 3$ " after the last "cyclic" at the end of the second line.
- §3.3 p.134 In Definition 3.4 omit "by".
- §3.3 p.135 In Definition 3.5 "length" is misspelled.
- §3.3 p.145 In Exercise 22 "appear" is misspelled.
- §3.4 p.147 In the third line of the new paragraph, "correspond" is misspelled.  
In the fourth line above Theorem 3.18, "and different" should be "are different ...".

### CHAPTER 4

- §4.1 p.160 In line 6 of the second paragraph, starting "then  $g \in \dots$ " the four  $N$  should be  $H$ .
- p.161 In Exercise 9 at the end, change "for  $H$  in  $G$ ." to "for  $\{H + g \mid g \in G\}$ ."
- §4.2 p.164 In Example 4.8, replace  $[2]_3$  with  $[2]_7$ .
- p.165 In Theorem 4.7, the first " $G$ " should be italic.  
In Corollary, the first " $a$ " is Roman, not ital: "... a prime ..."
- §4.4 p.169 In Exercise 22a change  $2^{96,421}$  to  $3^{96,407}$ .

### CHAPTER 5

- §5.1 p.195 In Exercise 5 change "cycle" to "cyclic".
- §5.4 p.210 In the line before Definition 5.4 change " $\leq$ " to " $\geq$ ":  $n \geq 2$ .

### CHAPTER 6

- §6.2 p.226 In Exercise 3 change the last  $\cong$  to  $=$  (i.e.:  $\dots(i, n)G_i(i, n) = G_n$ .)

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CHAPTER 8

§8.4 p.286 In the fifth line " $o(\langle x \rangle) = p$ " should be:  $o(x) = p$ .

CHAPTER 10

§10.1 p. 325 At the end of the third line from the end of Example 10.2 the double parenthesis should be removed: " $(r_1, \dots, r_k) \cdot$ ", not " $((r_1, \dots, r_k) \cdot$ "

§10.3 p.342 In Exercise 12, remove the "dash" after "Beware": "Beware:  $R$  need ..."

§10.4 p.351 In Exercise 16, replace " $\text{char } R = 2$ " with " $2R = 0$ "

CHAPTER 11

§11.1 p.355 The period after the bold "two-sided ideal" near the bottom should not be bold.

CHAPTER 14

§14.1 p.460 The summation in the second line needs to be larger.

CHAPTER 15

§15.4 p.514 In Exercise 8 in the parenthetical expression, the "see" should be "See".

§15.5 p.517 Just above Example 15.23 in the two chains of subgroups of  $\mathbf{Z}_{18}$  each of the  $\langle [1] \rangle$  should be  $\langle [0] \rangle$ .