

Errata from *Abstract Algebra*

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Introduction

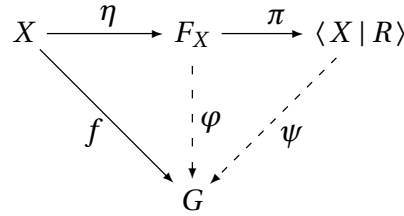
This document contains errata from [1]. Locations in the text are indicated by coordinates (p, n) , where p is a page number and n is a line number on page p . Positive line numbers count from the top of the page, whereas negative line numbers count from the bottom of the page. Displayed equations, diagrams, and figures are counted as single lines.

Errata are currently only listed for Chapters I–II.

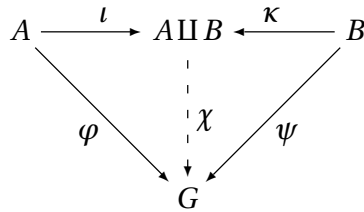
Chapter I

- (6,-19): “by Proposition 1.12” should be deleted (because there is no such proposition).
- (11,-10): $x_1 = x_2 = \cdots = x_m = -a$ should be $x_1 = x_2 = \cdots = x_m = a$.
- (12, 4), (12, 6): “semigroup” should be “nonempty semigroup”.
- (18,10): the end of proof symbol “□” should be deleted.
- (21,-5): “4.16” should be “4.9”.
- (23, -7): in the statement and proof of Theorem 5.2, f should be φ .
- (24,-13): “5.1” should be “5.2”.
- (24,-11): $a \in \ker p$ should be $m \in \ker p$.
- (25,3): “isomorphisms theorems” should be “isomorphism theorems”.
- (26,3): $A \cap N \trianglelefteq N$ should be $A \cap N \trianglelefteq A$.

- (33,3), (33,5): φ should be π .
- (33,3): F should be F_X .
- (33,-10): φ should be ψ .
- (34,3): the diagram should be



- (40,-5): the diagram should be the coproduct diagram



Chapter II

- (45,16): $p_2^{k_2}$ should be p^{k_2} .
- (46,7): “since $(c^m)^k = 1$ if and only if mn divides mk , if and only if n divides k ” should be “since $(c^n)^k = 1$ if and only if mn divides nk , if and only if m divides k ”.
- (47,-14): “every homomorphisms” should be “all homomorphisms”.
- (48,-12): G should be $G_1 \times G_2 \times \cdots \times G_n$.
- (50,-17): “inner automorphism” has not yet been defined.
- (52,12), (52,13): $x_1 x_2 \cdots x_n$ should be $x_1 x_2 \cdots x_m$.
- (52,19), (52,21), (52,22): η_n should be η_m .

- (53,12): $m \leq k$ should be $k \leq m$.
- (53,15), (53,17): ζ_m should be ζ_n .
- (55,10): “a subgroup of G ” should be “a subgroup H of G ”.
- (60,-3): $\sigma\tau x = x\tau\sigma x$ should be $\sigma\tau x = x = \tau\sigma x$.
- (61,13): $\gamma_A = (a, \sigma a, \dots, \sigma^{k-1} a)$ should be $\gamma_A = (a \sigma a \cdots \sigma^{k-1} a)$.
- (69,19): D_4 should be D_6 .
- (71,-13): $\{r_0, r_1\}$ should be $\{r_0, r_2\}$.
- (71,-1): B_{i+1} should be B_{j+1} .
- (73,11): “ $T \trianglelefteq ST$ ” should be deleted (because we already know that).
- (74,5): “compositions series” should be “composition series”.
- (74,14): $D_{\sigma(k-1)}$ should be $D_{\sigma k-1}$.
- (75,17): we must assume $i \neq k$.
- (75,-11): A should be A_n .
- (80,8): $E_1 \cdots E_n M$ should be $E_1 \cdots E_n D$.
- (81,-11): Eu should be $E\nu$.
- (81,-9): “8.4” should be “8.3”.
- (82,-15): $PSL(2,2)$ should be $PSL(2,3)$.
- (85,13): “there are Sylow p -subgroups S and T ” should be “there are distinct Sylow p -subgroups S and T ”.
- (89,-6): $g = c_1, \dots, c_n$ should be $g = c_1 \cdots c_n$.
- (89,-7): G_k should be G^k .
- (91,15): $C(G/Z_k)$ should be $Z(G/Z_k)$.
- (95,12): the end of proof symbol “ \square ” should be deleted.

- (100,-12): $rt \equiv 1$ should be $rt \equiv t$.
- (101,-9): $s_{j,k}s_{j+k-nl}$ should be $s_{j,k}s_{j+k-n,l}$.
- (102,-19): “12.8” should be “12.6”.

References

- [1] Grillet, Pierre A. *Abstract Algebra*, 2nd ed., 1st printing. Springer, 2007.