CORRECTIONS FOR TEXT, ALGEBRA: GROUPS, RINGS, AND FIELDS (1994), AS OF 20.2.97 (PUBLISHER AK PETERS LTD. WELLESLEY, MA)

Comments welcome.

p. xii, line -18: example of a PID

p. 14 Exercise 1.12: $\mu(n_1, n_2) = \mu(n_1)\mu(n_2)$ if n_1, n_2 are relatively prime.

p. 24, line 12, insert: In case an isomorphism exists from G_1 to G_2, we say "G_1 is *isomorphic* to G_2" and write $G_1 \approx G_2$.

p. 45 line 5:

$$(\sigma, \pi) \mapsto \left(\begin{smallmatrix} 1 & \dots & n & n+1 & \dots & 2n \\ \sigma 1 & \dots & \sigma n & \pi(n+1) & \dots & \pi(2n) \end{smallmatrix} \right).$$

p. 47, insert after theorem 7.2:

Of course one could throw in redundant generators (such as e), and on the other hand one could tack on direct products with copies of $\{e\}$, since any group $G \approx G \times \{e\}$, and it will be convenient to permit these redundancies.

p. 52 line 12:
$\ker f \approx C_1(p) \times \dots \times C_t(p)$,

p. 58 line -5: $0 \le i < \mathrm{o}(a),\ 0 \le j < \frac{|G|}{\mathrm{o}(a)}$.

p. 64 line 3: $\mathbb{Z}_m$, $\mathbb{Z}_2$, or D_m

p. 67 line 19: G is a finite set ...

p. 76 Exercise 10.1: for any surjection

p. 82 Exercise 11.5: has order $p, p^2, \dots, p^{t-2}$

p. 83 lines 4, 10, 11: finite simple

p. 90 line -2: $c, d \neq 0$

p. 104 Note 4$'$: R has no nontrivial ideals.

p. 106 line -11: $\bar{\varphi}$

p. 107 line -8: Proposition 13.9 and Remark 13.11

p. 108 line 2: $a \in A_1$; consequently $\varphi(a_2 \dots a_t) = (1, 0, \dots, 0)$.)

p. 112 line 6: ... view $W \subseteq Q$ ...

p. 121 line -3: $\exp(f) = 1 + f + \frac{f^2}{2} + \frac{f^3}{3!} + \dots$

Typeset by $\mathcal{A}\mathcal{M}\mathcal{S}$-TEX

p. 129 line -6: $d = \gcd(a, b)$ in a PID

p. 136 Exercise 4: Suppose n is a prime power.

p. 137 line -2: Corollary 15

p. 143 line 14: $Z[\rho]$

p. 145 line 10 $Z[\rho]$

p. 151 Exercise 1: $f \in \mathbb{R}[x]$

p. 162 Example 12(iv): $\alpha \in F$ is not a square in F

p. 166 line 9: $m_t a$

p. 174 line -2: No for $n = 7, 9, 11, 13, 14$;

p. 178 line -16: $f \in F[x]$ is irreducible

p. 184 line 4: $x - b = \gcd(g(x), h(x))$,

p. 184 Exercises 5,6: K/F is assumed finite.

p. 189 line 4: F is a finite field, of order $n = p^t$.

p. 190 Exercise 3:

$$n_p(t) = \frac{\sum_{d|t} \mu(t/d) p^d}{t}.$$

p. 193 line -13: $|\operatorname{Gal}(K/F)| \leq [K : F]$,

p. 202 line -10: $t = 0, 1, 2, 3, 4$, (n respectively is $3, 5, 17, 257$, and $2^{16} + 1 = 65537$),

p. 215 line -11: is a semidirect product