The list of known typographical errors for the first printing is as follows.

p. 2, l. 26. Replace $\{x : \exists y(y = f(x) \wedge \dots x \dots\}$ with $\{y : \exists x(y = f(x) \wedge \dots x \dots\}$.

p. 3, l. 9. Change "the set of pairs is sometimes called" to "the set of pairs of a binary function is sometimes called"

p. 5, l. 19. Change "and is called the cardinality of S." to "and is called the cardinality of S, and denoted $|S|$."

p. 5, l. 31. Delete "function, floor".

p. 5, l. 32. Delete "function, ceiling".

p. 32, l. 19. Change "C is the collection of ideals $J \subseteq G$" to "C is the collection of ideals $J \subseteq R$"

p. 33, l. 29. Change "if it contains no" to "if it is nontrivial and contains no".

p. 33, l. 42. Change "Suppose R is a commutative ring" to "Suppose R is a nontrivial commutative ring"

p. 34, l. 41. Change "2. a maximal ideal is prime." to "2. a prime ideal is maximal."

p. 37, l. 16. Move this line so that it follows line 29, "One readily verifies that"

p. 37, l. 33. Change both occurrences of "an ordered commutative ring" to "a nontrivial ordered commutative ring".

p. 38, l. 2. Change "the monomorphism $A \mapsto aR$" to "the monomorphism $a \mapsto aR$"

p. 46, l. 24-25. Change "F" to "g".

p. 54, l. 2-3. Change "This is a left ideal. For R commutative it is an ideal, indeed the kernel" to "This is a two-sided ideal. For R commutative it is the kernel"

p. 66, l. 36. Change "$N_{qk} = (1/k)\sum_{d|k} \mu(k/d)k^d$." to "$N_{qk} = (1/k)\sum_{d|k} \mu(k/d)q^d$."

p. 71, l. 23. Change "If M is an R-module, a submodule $N \subseteq M$ is said to be R-invariant, or simply invariant, if $RN \subseteq N$. Note that any principal submodule is invariant." to "If M is an S-module, a submodule $N \subseteq M$ is also said to be S-invariant, or simply invariant, especially if M is also an R module for some other ring R."

p. 88, l. 34-37. The $\wedge$ and $\vee$ columns in the table are upside-down; the table should be as follows.

S	T	$S \wedge T$	$S \vee T$	$S \Rightarrow T$	$S \Leftrightarrow T$	$S \oplus T$
$\top$	$\top$	$\top$	$\top$	$\top$	$\top$	$\bot$
$\top$	$\bot$	$\bot$	$\top$	$\bot$	$\bot$	$\top$
$\bot$	$\top$	$\bot$	$\top$	$\top$	$\bot$	$\top$
$\bot$	$\bot$	$\bot$	$\bot$	$\top$	$\top$	$\bot$

p. 95, l. 23. Change "a congruence relation" to "a strongcongruence relation".

p. 95, l. 30. Change "a congruence relation" to "a strongcongruence relation".

p. 103, l. 17. Change "The length of integer "length" of a nonnegative integer" to "The "length" of a nonnegative integer"

p. 104, l. 27. Change "while machine" to "while program".

p. 105, l. 5. Change "Indeed, there is a universal Turing machine "universal" Turing machine" to "Indeed, there is a "universal" Turing machine"

p. 105, l. 7. Change "details are" to "Details are".

p. 110, l. 19. Change "$xi_1 \dots x_n$" to "$xi_1 \dots i_n$"

p. 112, l. 3. Change "T is many-one complete" to "If T is ω-consistent than T is many-one complete".

p. 113, l. 113. Change "PA is a G_1-theory" to "both Q and PA are G_1-theories".

p. 127, l. 46. Change "which is called afunctor" to "which is called a functor"

p. 180, l. 13-19. Change the proof of Lemma 20 to the following.

Let S denote the intersection of the annihilators. First, we claim that if M is a simple R-module and $m \in M$, then $\mathrm{Ann}(m)$ is a maximal left ideal. Indeed, since M is simple the map $r \mapsto rm$ is an epimorphism. Its kernel is $\mathrm{Ann}(m)$, whence M is isomorphic to $R/\mathrm{Ann}(m)$; and since M is simple $\mathrm{Ann}(m)$ must be maximal. From this, if $r \in \mathrm{Rad}(R)$ and M is simple, then $r \in \mathrm{Ann}(m)$ for any $m \in M$, whence $r \in \mathrm{Ann}(M)$. This show that $\mathrm{Rad}(R) \subseteq S$. Second, we claim that if $I \subseteq R$ is a maximal left ideal then R/I is a simple R-module; this follows from $R(r + I) = Rr + I = R$ if $r \notin I$. So if $r \in S$ then $r(R/I)$ equals the 0 element of R/I, whence $rR \subseteq I$ and $r \in I$, which shows that $S \subseteq \mathrm{Rad}(R)$.

p. 180, l. 35. Change the first sentance of the proof of Theorem 22 to the following.

If J is the intersection of all maximal left ideals of R which contain I then $\mathrm{Rad}(R/I)$ equals J/I.

p. 180, l. 39. Change "M is simple M' is" to "if M is simple M' is".

p. 194, l. 39. Change "Y is closed in X. iff it is closed." to "Y is closed in X iff it is closed."

p. 197, l. 25. Chane " canonical quotient metric space" to "canonical quotient metric space by the congruence relation $d(x, y) = 0$".

p. 206, l. 32. Change "The definition of a /idxgraded ring" to "The definition of a graded ring"

p. 206, l. 36. Change "G-grading of an /sidxgraded module R-module M" to "G-grading of an R-module M"

p. 208, l. 43. Change "If e_i' is a different basis for R" to "If e_i' is a different basis for M".

p. 209, l. 4. Change "the the case" to "the case"

p. 209, l. 37. Change "Similar remarks for antisymmetry" to "Similar remarks hold for antisymmetry"

p. 211, l. 17. Change "generated the equations" to "generated by the equations"

p. 211, l. 25. Change "$A \otimes B$ is a coproduct object in the category of R-algebras, with these maps as injections." to "In the category of commutative R-algebras, $A \otimes B$ is a coproduct, with these maps as injections."

p. 211, l. 29. Change "the uniqueness requirement is clearly satisfied." to "remaining requirements for a coproduct are readily verfied." Append "For a universality property in the noncommutative case, see [Jacobson]."

p. 211, l. 30. Change "$A \otimes B$ may also be characterized as the pushout in Rng" to "For commutative algebras $A \otimes B$ may also be characterized as the pushout in CRng"

p. 226, l. 12. Change "iaugmentation arrow" to "augmentation arrow"

p. 230, l. 40. Change "long exact sequence for $\mathrm{Hom}(-M)$" to "long exact sequence for $\mathrm{Hom}(-, M)$"

p. 238, l. 23. Change "and $E \subseteq F$ is an algebraic extension" to "and $E \supseteq F$ is an algebraic extension"

p. 238, l. 40-41. Change " subset of E is called a ." to " subset of E is called a transcendence base."

p. 245, l. 11. Change "If S is a multiplicative subset of R then R'/S is integral over R/S" to "If S is a multiplicative subset of R then R'_S is integral over R_S"

p. 250, l. 6–11. Change the proof of Theorem 34 to the following.

PROOF: The proof is by induction on n. If $n = 1$, $a_1^{-1} = p(a_1)$ for some $p \in F[x]$, whence a_1 is algebraic over F and E is finite over F. If $n > 1$ let $F_1 = F(a_1)$, let $R = F[a_1]$, and for $c \in R$ let R_c be the fractions with denominator a power of c. Then $E = F_1[a_1, \ldots, a_n]$, so by induction E is a finite extension of F_1. For each i with $2 \leq i \leq n$ there is a $p_i \in F_1[x]$ such that $p(a_i) = 0$. Let c_i be the leading coefficient of p_i after clearing denominators; then a_i is integral over R_{c_i}. Letting $d = c_2 \cdots c_n$, each a_i is integral over R_d. It follows that every element of E is integral over R_d, whence that a_1 satisfies a polynomial with coefficients in R, whence that a_1 is algebraic over F, anf the theorem follows.

p. 251, l. 19. Change "in a commutative ring A is said to be invertible ideal invertible" to "in a commutative ring A is said to be invertible"

p. 255, l. 19. Change "an involution $x \mapsto \bar{x}$. Let" to "an involution $x \mapsto \bar{x}$, let"

p. 257, l. 8. Change "It is has no zero divisors" to "It has no zero divisors"

p. 257, l. 18. Change "to wrote out the bilinear forms" to "to write out the bilinear forms"

p. 262, l. 13. Change "$(x \cup y)^c = x^c \cap y^c$ $(x \cap y)^c = x^c \cup y^c$" to "$(x \sqcup y)^c = x^c \sqcap y^c$ $(x \sqcap y)^c = x^c \sqcup y^c$".

p. 266, l. 14. Delete "A morphism in Frm preserves $\to$, because $x \to y = \sup\{z : x \sqcap z \leq y\}$."

p. 266, l. 15. Change "all meets must be preserved as well" to "morphisms must preserve $\to$, all meets, and all joins".

p. 276, l. 27. Change $y = sqcupy^{\ll}$ to $y = \sqcup y^{\ll}$.

p. 296, l. 30. Change "difference and countable union and difference" to "difference and countable union"

p. 304, l. 12. Change "the four group $\mathcal{Z}_{\in} \times \mathcal{Z}_2$" to "the four group $\mathcal{Z}_2 \times \mathcal{Z}_2$"

p. 305, l. 39. Change "matrix Q on $\mathcal{R}^n$ Q equal $-\cos(\pi/m_{rs})$" to "matrix Q on $\mathcal{R}^n$, where Q_{rs} equals $-\cos(\pi/m_{rs})$"

p. 305, l. 42. Change "where e_r is the rth basis vector" to "where e_r is as usual the rth standard unit vector"

p. 306, l. 2. Change "-1" to "-1".

p. 307, l. 18. Change "It an be shown" to "It can be shown"

p. 308, l. 23 Change "$1 \leq mu_{rs} \leq 3$" to "$1 \leq \mu_{rs} \leq 3$"

p. 309, l. 22 Change "one -1" to "one -1"

p. 312, l. 22. Change "The full symmetry group of an oblique lattice L is `cmm`." to "The full symmetry group of a rombohedral lattice L is `cmm`."

p. 313, l. 23. Change "finite sequence $a_0, \ldots, a_n$ of real numbers," to "finite sequence $a_0, \ldots, a_n$ of real numbers with $a_n \neq 0$ if $n > 0$,"

p. 315, l. 22. Change "and $p_n = q_{n+1}$. (for readers" to "and $p_n = q_{n+1}$ (for readers"

p. 328, l. 15. Change "iBanach space" to "Banach space"

p. 339, l. 16. Change "We may defined a manifold" to "We may define a manifold"

p. 339, l. 41. Change "and F is an sub-topological" to "and F is a sub-topological"

p. 340, l. 7. Change "This bundle is called the itangent bundle" to "This bundle is called the tangent bundle"

p. 341, l. 4. Change "transformation law for contravariant vector contravariant vectors" to "transformation law for contravariant vectors"

p. 350, l. 25 Change "hypotheses of lemma 38.b are satisfied," to "hypotheses of lemma 38.b,"

p. 355, l. 30 Change "then Y_i is Noetherian" to "then Y is Noetherian"

p. 355, l. 43 Change "$y^{cl} \subseteq x$" to "$y^{\mathrm{cl}} \subseteq x$"

p. 356, l. 15 Change "other terminology is used;" to "other terminology is used."

p. 357, l. 11. Change "is called a iquasi-affine algebraic set" to "is called a quasi-affine algebraic set"

p. 359, l. 30. Change "$A_{A_{\neq}}$" to "$A_{A^{\neq}}$".

p. 359, l. 35. Change "$A_{A_{\neq}}$" to "$A_{A^{\neq}}$".

p. 360, l. 31. Change "iheight of a prime ideal" to "height of a prime ideal"

p. 364, l. 27-28. Change the first two sentances of the paragraph to

A fraction p/q where p and q have the same degree d determines a function on D_q, because $p(rx)/q(rx) = (r^d p(x))/(r^d q(x)) = p(x)/q(x)$. That is, a specific pair p/q determines a function.

p. 365, l. 4. Change "alternatively characterizations" to "alternative characterizations"

p. 377, l. 3. Change "which are called algebraic number field algebraic number fields" to "which are called algebraic number fields"

p. 377, l. 29. Change "The algebraic integer algebraic integers" to "The algebraic integers"

p. 378, l. 13. Change "$A_{A^{neq}}$" to "$A_{A^{\neq}}$"

p. 379, l. 30. Change "Throughout this section, F will denote" to "Throughout this section, F will denote"

p. 379, l. 44. Change "and the f the residue class degree" to "and f the residue class degree"

p. 380, l. 36. Change "corresponding fact for in the" to "corresponding fact in the"

p. 384, l. 41 Change "using obvious notation. the order" to "using obvious notation, the order"

p. 388, l. 31. Change "over an algebraically closed set" to "over an algebraically closed field"

p. 388, l. 41. Change "over an algebraically closed set" to "over an algebraically closed field"

p. 388, l. 38. Change " is a clearly linear algebraic group" to " is clearly a linear algebraic group"

p. 388, l. 41. Change " stronger that the Zariski topology" to " stronger than the Zariski topology"

p. 389, l. 24. Change "because its projection is a constructible subset" to "because its projection would be a constructible subset"

p. 391, l. 33. Change "By lemmas 2 and 1" to "By lemmas 3 and 1"

p. 392, l. 18. Change "an associative Lie algebra A" to "an associative algebra A"

p. 393, l. 8. Change "As is readily verified, $h[[L, L]] = [h[L], h[L]]$" to "As is readily verified, for a homomorphism $h : L \mapsto M$, $h[[L, L]] = [h[L], h[L]]$"

p. 398, l. 11. Change "For the next 5 exercises" to "For exercises 1 to 7"

p. 409, l. 22. Change "a open formula $F'(\mathbf{y})$" to "an open formula $F'(\mathbf{y})$"

p. 412, l. 45. Change "section 6" to "section 5"

p. 414, l. 14. Change "Thus, $h_Q \div \hat{\kappa}$." to "Thus, $h_Q | \hat{\kappa}$."

p. 416, l. 21 and 43. Change ".." to "."

p. 416, l. 31. Change "d" to "d"

p. 417, l. 21. Change "between α and $f[\alpha]$" to "between α and $f[\alpha]$ such that $f[\alpha]$ is $<$-closed".

p. 428, l. 2. Change "M is jurjective" to "M is surjective"

p. 429, l. 22. Change "and a edge between" to "and an edge between"

p. 432, l. 21. Add following this line:

[BourL] N. Bourbaki, *Lie Groups and Lie Algebras*, Springer.

p. 433, l. 18. Change "A Compendium of Continuous Lattices" to "*A Compendium of Continuous Lattices*"

p. 433, l. 33. Change "Basic Algebnra I,II W.H. Freeman," to "*Basic Algebra I,II*, W.H. Freeman,"

p. 434, l. 7. Delete "Ohio State University Press, 1955."

p. 434, l. 25. Change "*A Course in p-adic Analusis*" to "*A Course in p-adic Analysis*"

p. 437. Change "complexity class $\mathcal{P}$, 117, 118" to "complexity class $\mathcal{P}$, 117" and add "complexity class $\mathcal{NP}$, 118"

p. 437. Change "cpmpact space" to "compact space".

p. 437. Add "division ring, 32" to the index.

p. 438. Add "field, 32" to the index.

p. 440. Add "Nakayama's lemma, 181" to the index.

p. 442. Add "skew field, 32" to the index.

In chapter 26 the terminology "lies over" is used in some places, whereas "lies above" is used in chapter 20. All uses have been changed to "lies above".