

Index of definitions and conjectures

Conjecture 1, 298
Conjecture 2, 443

Definition 1, 20
Definition 2, 21
Definition 3, 24
Definition 4, 52
Definition 5, 58
Definition 6, 59
Definition 7, 65
Definition 8, 88
Definition 9, 88
Definition 10, 88
Definition 11, 88
Definition 12, 212
Definition 13, 223
Definition 14, 224
Definition 15, 253
Definition 16, 260
Definition 17, 263
Definition 18, 263
Definition 19, 271
Definition 20, 278
Definition 21, 298
Definition 22, 316
Definition 23, 316
Definition 24, 316
Definition 25, 316
Definition 26, 316
Definition 27, 390
Definition 28, 391
Definition 29, 391
Definition 30, 420

Index of theorems

Theorem 1, 12	Theorem 41, 247
Theorem 2, 13	Theorem 42, 253
Theorem 3, 15	Theorem 43, 263
Theorem 4, 16	Theorem 44, 271
Theorem 5, 18	Theorem 45, 279
Theorem 6, 20	Theorem 46, 298
Theorem 7, 21	Theorem 47, 301
Theorem 8, 24	Theorem 48, 304
Theorem 9, 50	Theorem 49, 308
Theorem 10, 52	Theorem 50, 319
Theorem 11, 59	Theorem 51, 321
Theorem 12, 62	Theorem 52, 322
Theorem 13, 63	Theorem 53, 325
Theorem 13', 69	Theorem 54, 331
Theorem 14, 66	Theorem 55, 334
Theorem 14', 70	Theorem 56, 339
Theorem 15, 71	Theorem 57, 339
Theorem 16, 72	Theorem 58, 341
Theorem 17, 75	Theorem 59, 352
Theorem 18, 89	Theorem 60, 355
Theorem 19, 92	Theorem 61, 366
Theorem 20, 92	Theorem 62, 369
Theorem 21, 96	Theorem 63, 371
Theorem 22, 101	Theorem 64, 372
Theorem 23, 104	Theorem 65, 375
Theorem 24, 110	Theorem 66, 378
Theorem 25, 122	Theorem 67, 380
Theorem 26, 160	Theorem 68, 380
Theorem 27, 161	Theorem 69, 382
Theorem 28, 165	Theorem 70, 391
Theorem 29, 168	Theorem 71, 408
Theorem 30, 187	Theorem 72, 411
Theorem 31, 196	Theorem 73, 415
Theorem 32, 201	Theorem 74, 421
Theorem 32a, 204	Theorem 75, 435
Theorem 33, 203	Theorem 76, 438
Theorem 34, 204	Theorem 77, 441
Theorem 35, 213	Theorem 78, 443
Theorem 36, 215	Theorem 79, 458
Theorem 37, 217	Theorem 80, 463
Theorem 38, 227	Theorem 81, 466
Theorem 39, 237	Theorem 82, 474
Theorem 40, 244	

Index of terms

- affine coordinate ring, 518
- algebraic point, 522
- basis of a lattice, 502
- block of imprimitivity, 495
- block of a permutation group, 495
- blocks conjugate, 495
- class C_0, C_1, C_2, C_3 , 316
- codimension of a variety, 518
- coefficient vector of a form, 492
- content of a polynomial, 9
- convex hull of a set, 512
- convex set, 512
- convex span of points, 512
- curve, 518
- decompositions equivalent, 21
- degree
 - of a permutation group, 495
 - of a variety, 519
- denominator of an element of a function field, 485
- determinant of a lattice, 502
- Dickson's polynomials, 24
 - of the second kind, 162
- differential, 205
 - closed, 205
- dimension of a convex set, 512
- dimension of a variety, 518
- divisor of a function field, 485
- edges of a polytrope, 513
- extension
 - Bauerian, 368
 - primitive, 20
- extreme points, 513
- face of a convex set, 512
 - exposed, 513
- field
 - arithmetically semi-finite, 314
 - Hilbertian, 298, 312
 - Kroneckerian, 5, 390
 - of rational functions on X , 518
 - separably Hilbertian, 314
- form, 10
 - non-singular, 10
 - singular, 10
- Frobenius substitution, 16
- fundamental domain of a lattice, 520
- generalized Bézout Theorem, 519
- genus
 - of a function field, 485
 - of a curve, 488
- height of a polynomial, 212
- Hensel's lemma, 484
- Hilbert's irreducibility theorem, 4, 298, 312
- hypersurface, 518
- irreducible component of a variety, 518
- kernel of a polynomial, 278
- Kronecker's substitution, 58
- lattice in \mathbb{R}^n , 502
 - full, 502
 - orthogonal to a given one, 521
 - primitive, 520
- Laurent polynomial, 88
 - extreme-monic, 253
- leading coefficient of a polynomial, 9
- length of a polynomial, 212
- local parameter of a prime ideal, 481
- Mahler's measure of a polynomial, 224
- matrix associated with a polynomial, 88

- Newton polytope of a polynomial, 88
 numerator of an element of a function field, 485
- 1-form, 205
 closed, 205
 orbit of a permutation group, 495
- permutation group
 doubly transitive, 495
 imprimitive, 495
 intransitive, 495
 primitive, 495
 regular, 496
 transitive, 495
- polynomial
 additive, 65
 bireciprocal, 419
 complete, 59, 196
 complete indeterminate, 201
 cyclotomic, 263
 cyclotomic over a given field, 263
 extended cyclotomic over a field, 263
 indecomposable, 2, 20
 integral, 59
 isobaric, 188
 monic, 9
 primary, 112
 prime, 2
 primitive, 9
 reciprocal, 391
 self-inversive, 5, 391
 tame, 52
 uniform over an interval, 236
 polynomials equivalent, 112
 polytope in \mathbb{R}^n , 513
 prime divisor, 481
 totally ramified, 482
 unramified, 482
 product formula, 522
 projective closure of an affine variety, 519
- ramification index of a prime divisor, 482
 rank of a lattice, 502
 residue class in \mathbb{Z}^r , 316
- residue field degree of a prime divisor, 482
 resultant of a system of forms, 493
- set arithmetically dense in a residue class, 316
 stability subgroup of a permutation group (stabilizer of a letter), 495
 subtorus, 520
 supporting hyperplane of a convex set, 512
- term extreme, 88
 terms opposite, 88
- theorem
 Bertini, 217
 Bezout (generalized), 519
 Capelli, 92
 Gauss, 498
 Geyer, 70
 Gordan–Igusa, 15
 Gourin (extended), 110, (refined), 263
 Hilbert (simplified), 4, (refined), 298
 Kneser, 92
 Kronecker, 59
 Kronecker & Kneser, 62
 Lüroth, 13
 Noether, 12, 16, 201, 204
 Northcott, 523
 Ritt, 51, (first), 21, (second), 24
 Ruppert, 204, 213
 Salomon, 215
 Uchida, 313
 Wójcik, 263
- torsion point, 521
- variety in affine space, 517
 defined over k , 518
 general linear, 519
 in projective space, 519
 pure dimensional, 519
 vertices of a polytope, 513
 opposite, 514
 volume of a lattice, 520
- Weil height
 of an algebraic number, 522
 logarithmic Weil height, 522
- Zariski topology, 518