

1. THEOREMS TO KNOW

- (1) Theorem 1.3.1
- (2) Cor. 2.1.5
- (3) Cor. 2.2.5
- (4) Prop. 2.4.3
- (5) Prop. 3.1.1
- (6) Theorem 3.1.4
- (7) Theorem 3.2.4
- (8) Lemma 4.1.9
- (9) Lemma 4.1.13
- (10) Prop. 4.1.14
- (11) Lemma 4.3.3
- (12) Lemma 4.4.2
- (13) Theorem 4.4.3
- (14) Prop. 4.4.4
- (15) Cor. 4.4.5
- (16) Cor. 4.4.9
- (17) Theorem 5.1.6
- (18) Cor. 5.1.7
- (19) Prop. 5.2.1
- (20) Prop. 5.2.4
- (21) Prop 5.3.7
- (22) Thm. 5.4.1
- (23) Cor. 5.4.2
- (24) Lemma 6.1.3
- (25) Prop. 6.1.4
- (26) Prop. 6.3.1
- (27) Prop. 6.3.7
- (28) Prop. 7.1.3
- (29) Theorem 7.1.5
- (30) Prop. 7.1.6
- (31) Prop. 7.1.7
- (32) Theorem 7.2.5
- (33) Theorem 7.2.7
- (34) Theorem 7.3.1
- (35) Theorem 7.4.1
- (36) Prop. 7.4.2
- (37) Theorem 8.1.4
- (38) Prop. 8.1.5
- (39) Theorem 8.1.3
- (40) Prop. 8.2.6
- (41) Lemma 8.2.7
- (42) Theorem 8.2.8
- (43) Cor. 8.2.9
- (44) Lemma 8.3.1
- (45) Lemma 8.3.2
- (46) Theorem 8.3.3
- (47) Theorem 8.4.3
- (48) Lemma 9.1.1
- (49) Prop. 9.1.5
- (50) Lemma 9.1.8
- (51) Theorem 9.1.9
- (52) Theorem 10.1.6
- (53) Cor. 10.1.8
- (54) Theorem 10.1.12
- (55) Theorem 10.2.1
- (56) Cor. 11.1.3
- (57) Theorem 11.1.4

2. THEOREMS THAT YOU SHOULD BE ABLE TO PROVE

- (1) Theorem 2.2.2
- (2) Prop. 3.1.3
- (3) Lemma 4.1.3
- (4) Prop. 4.3.4
- (5) Theorem 4.3.8
- (6) Theorem 4.4.7
- (7) Prop. 5.1.8
- (8) Prop 5.3.2
- (9) Lemma 5.3.5
- (10) Prop 6.1.2
- (11) Prop. 6.1.11
- (12) Theorem 6.2.1
- (13) Theorem 7.1.1
- (14) Lemma 7.2.4
- (15) Theorem 9.1.11
- (16) Theorem 10.1.4
- (17) Prop. 11.1.1
- (18) Theorem 11.1.2
- (19) Cor. 11.1.3
- (20) Theorem 11.1.7

3. DEFINITIONS THAT YOU SHOULD KNOW

- (1) Elementary Symmetric Polynomials (28)
- (2) Symmetric polynomial (30)
- (3) Discriminant (46)
- (4) Algebraic element (73)
- (5) Transcendental element (73)
- (6) Minimal polynomial (74)
- (7) $F(\alpha_1, \dots, \alpha_n)$
- (8) Finite extension (89)
- (9) Degree of an extension (89)
- (10) Algebraic extension (95)
- (11) Splitting field (101)
- (12) Normal extension (108)
- (13) Separable polynomial (109)
- (14) Separable element (111)
- (15) Separable extension (111)
- (16) Primitive element (119)
- (17) $\text{Gal}(L/F)$ (125)
- (18) $\text{Gal}(f)$ (128)
- (19) Fixed field (147)
- (20) Galois closure (152)
- (21) Conjugate fields (154)
- (22) Solvable group (191)
- (23) Radical extension (197)
- (24) Solvable extension (197)
- (25) Compositum (198)
- (26) Simple group (210)
- (27) Expressible by radicals (215)
- (28) Solvable by radicals (215)
- (29) Euler ϕ function (230)
- (30) Cyclotomic polynomial Φ_n (231)
- (31) Constructible numbers (255)
- (32) Frobenius automorphism (295)