

Practice Problems

April 10, 2008

Set 1

section / exercise

- 1.2: 19 (gcd)
- 3.1; 14 (rings - def.)
- 3.2: 1 a,c (rings -prop) s
- 3.3: 9 (rings iso) s
- 4.1: 11 (poly rings) s
- 4.6: 2 (irred in $\mathbb{R}[x]$)
- 5.3: 5 ($\mathbb{Q}(\sqrt{3})$)
- 6.1: 40 (ideals)
- 7.1 (groups): 22
- 7.2 (groups-prop.) 22
- 7.5: 6 (index)

Set 2

- 2.1: 11c (congruence)
- 3.1: 15 (ring-def.)
- 3.2: 10 (rings-prop) s
- 4.1: 16 (poly rings hom)
- 4.3: 15 (uf-gcd) s
- 5.2: 8 (quotient poly rings)
- 6.1:3 (ideals)
- 6.3: 29 (quotient rings)
- 7.1:31 (groups)
- 7.3: 34 (subgps)
- 7.6: 15 (normal subgp)

Set 3

- 1.3: 13 (gcd + prime factorization)
- 3.1: 19 (rings-def.)
- 3.2 : 13 (rings - prop) -s
- 3.3: 31a (rings hom)
- 4.2: 5c (poly rings gcd)
- 6.1: 21 b (ideals)
- 7.1: 15 (groups)
- 7.4: 37 (groups iso)
- 7.7: 5 (quotient grps)