

MAT347Y1 HW5 Marking Scheme

Friday, October 23

Total: 23 points.

3.1.12: 5 points (2 for kernel, 1 per other fiber).

3.1.36: 4 points.

3.2.16: 4 points. Be careful - if a is a multiple of p then \bar{a} is not in $(\mathbb{Z}/p\mathbb{Z})^\times$!

3.3.5: 6 points

- (2) normality (σ^4 commutes with generators)
- (2) lattice
- (2) isomorphism type

3.5.7: 4 points.