

MAT 512, HOMEWORK 10

One goal for this course is for you to develop your skill in effectively communicating mathematics. With this in mind, try to write up your solutions as clearly as possible. A solution with little or no justification will receive little or no credit.

1. Make a list of all irreducible polynomials of degree ≤ 3 in the polynomial ring $\mathbb{F}_3[x]$.
2. Do Exercise 11.18 in the textbook.
3. Do Exercise 11.19 in the textbook.
4. Do Exercise 11.20 in the textbook.
5. Do Exercises 12.3(2) and 12.5(2) in the textbook.