

INTRODUCTION TO HIGHER MATHEMATICS V2000

HOMEWORK, WEEK 2, DUE SEPTEMBER 22

From Dumas, McCarthy, Second Edition, Chapters 1 and 2.

1. Exercises 1.25; 1.29 (ii), (iii); 1.31; 1.33 (iii)-(iv); 1.35 (complete the sketch in the hints).
2. Exercises 2.9 and 2.11.
3. Let X be the set consisting of cities, states, and lakes within the United States. Consider the relations “is contained in,” “contains,” “is the capital of.” Which of the properties of reflexivity, symmetry, antisymmetry, and transitivity do each of these relations have?

Optional problems. Exercises 1.23, 1.26, 1.28, 1.32, 2.12.