

Introduction to Databases

Homework 3

Handed out: Monday, November 1, 2004

Due back: Wednesday, November 17, 2004 (at the start of class)

Notes: To be done individually

This is the last homework – Homework 4 has been supplanted in favor of Project C

1. Textbook exercise 5.2.1b-e,g,i,k

Your final answer should be formal functional notation. You might find it helpful to work out expression trees first, however.

2. Textbook exercise 5.2.8
3. Textbook exercise 5.2.9
4. Textbook exercise 5.3.3
5. Textbook exercise 5.3.4c,f,g
6. Textbook exercise 5.4.1h,j,l
7. Textbook exercise 5.4.2d,e
8. Textbook exercise 5.5.1b,c
9. Textbook exercise 5.5.4

Extra Credit: What is the relational **calculus**? How does it differ from the relational algebra? What is it good for? Who uses it? Notice that there several possible answers.

Extra Credit: Write a one page essay giving your opinion of the relationship of relational algebra, relational calculus, predicate logic, propositional logic, and set theory.