

Homework 7

CS 3233 – Fall 2003
Tom Bylander, Instructor

assigned November 6, 2003
due November 13, 2003

1. (32 pts.) Do Exercise 7.1.6.
2. (20 pts.) Determine the transitive closure for each of the four relations listed in Exercise 7.4.26.
3. (8 pts.) Display the table produced by projecting the Gate and Destination fields in Table 8 in the book (p. 487).
4. (40 pts.) Construct the table obtained by joining the two tables on the State field (hint: the new table will have 8 rows).

City	State
Acapulco	Guerrero
Banff	Alberta
Cancun	Quintana Roo
Chicago	Illinois
Dallas	Texas
Houston	Texas
Key West	Florida
Monterrey	Nuevo Leon
Newport	Rhode Island
San Antonio	Texas
Toronto	Ontario
Vancouver	British Columbia

State	Country
Alberta	Canada
Florida	United States
Guerrero	Mexico
Iowa	United States
Nuevo Leon	Mexico
Ohio	United States
Ontario	Canada
Texas	United States

5. (Extra Credit, 10 pts.) Let A be a set of 4 elements. How many relations on A are transitive?