

Relational Operator Worksheet

Table Definition Page

This page need not be turned in with the rest of the assignment.

Consider the following tables:

T1

<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>
R	3	R	7
B	8	B	4
T	2	G	1
B	4	A	9
E	6	U	5

T2

<i>R</i>	<i>S</i>	<i>T</i>
A	3	Y
Y	4	G
N	8	G

T3

<i>F</i>	<i>G</i>	<i>H</i>	<i>I</i>
R	8	W	2
B	8	B	4
T	0	J	5
Q	4	M	1
E	6	U	5

The first row of each table contains the field names – it is not data. Thus table T1 has a cardinality of 5.

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Problems

Name _____

1. Which of these tables are union-compatible? (Mark as many as are true.)

- a) T1 and T2
- b) T2 and T3
- c) T1 and T3

2. Which of these tables are join-compatible? (Mark as many as are true.)

- a) T1 and T2
- b) T2 and T3
- c) T1 and T3

3. Suppose that a Cartesian Product is done with T1 and T2 as operands.

- a) What would be the degree of the resulting table?
- b) What would be the cardinality of the resulting table?

4. Show the result of a Natural Join of T1 and T2 based upon the G and S fields. Hint: The result should have the following fields:

F *G* *H* *I* *R* *T*

5. What operation or operations are needed to obtain the following table from T3?

8	2
8	4
0	5
4	1
6	5