$\begin{array}{c} \text{CSE 459/598 Spring 2009} \\ \text{Test 0} \end{array}$

Name:

Problem 1. Let A be $\{1,2,3\}$, and let B be $\{a,b\}$. Answer how many of the instances of the following are there.

- (a) cartesian product $A \times B$
- (b) relation over $A \times B$
- (c) function where the domain is A and the range is B

Problem 2. Explain the difference between relation and function.

Problem 3. Write a propositional formula F whose truth table is

p	q	r	F
f	f	f	f
f	f	t	t
f	t	f	f
f	t	t	f
t	f	f	t
t	f	t	f
t	t	f	f
t	t	t	f