

DISCRETE MATH QUIZ 8

Name: _____

You have 10 minutes for this exam. If you have a question, raise your hand and remain seated. In order to receive full credit your answer must be **complete**, **legible** and **correct**.

1. Define *function from A to B* .

A function from A to B is a **relation** from A to B satisfying the function rule. (That is, $F \subseteq A \times B$ and for every $a \in A$ there is a unique $b \in B$ such that $(a, b) \in F$.)

2. For each part of this problem give an example of a function $f: \mathbb{R} \rightarrow \mathbb{R}$ that is:
 - (a) injective

$$f(x) = x$$

- (b) not injective

$$f(x) = 0$$

- (c) surjective

$$f(x) = x$$

- (d) not surjective

$$f(x) = 0$$