Set Theory
Quiz 3

Name:_____

You have 10 minutes to complete this quiz. 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**. Show your work, and give adequate explanations.

1. Is it possible for a binary relation on a set A to be both an equivalence relation and a partial order? (If so, how?)

It IS possible, but in only one way: the equality relation on A is both an equivalence relation on A and a partial order of A.
(The equality relation on A is $\{(a, a) \in A \times A \mid a \in A\}$.)

2. Define *inductive set*.

A set x is inductive if $0 \in x$ and x is closed under the successor operation.