Set Theory
Quiz 8

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. Explain the meaning of the italicized words and phrases.

   (a) $f\colon (A, <) \to (B, <)$ is an *isomorphism* of ordered sets.

   f is an *isomorphism* if it is a bijection that is order-preserving and order-reflecting.

   (b) $(W, <)$ is a *well-ordered* set.

   $(W, <)$ is a *well-ordered* set if it is an ordered set in which every nonempty subset has a least element.

   (c) α is an *ordinal*.

   α is an *ordinal* if it is a transitive set that is well-ordered by $\in$.