Definition 1. An *ordinal number* is a transitive set α such that every element of α is a transitive set. Let an *ordinal* stand for an ordinal number.

Definition 2. $\mathbb{O}$ is the class of all ordinals.

Proposition 3. Let α be an ordinal. Then every element of α is an ordinal.

Proof. Let x be an element of α. Then x is transitive.

Let us show that every element of x is a subset of x. Let y be an element of x. Then y is a subset of x. Let z be an element of y. Every element of y is an element of x. Hence z is an element of x. End.

Thus every element of x is transitive. Therefore x is an ordinal. ■