

t55\_ordinal3  
(TMJw4vj4YdvKQNTgreFh7ik8bwrcqQaYaLs)

October 27, 2020

Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k5\_ordinal3 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $k10\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow ((X0 \neq k1\_xboole\_0) \Rightarrow (k1\_xboole\_0 \in X0)) \quad (1)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow ((X0 \in X1) \Rightarrow (X1 = k10\_ordinal2 X0 (k5\_ordinal3 X1 X0)))) \quad (2)$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (k10\_ordinal2 X0 k1\_xboole\_0 = X0) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1 X0) \wedge (v3\_ordinal1 X1)) \Rightarrow (v3\_ordinal1 (k5\_ordinal3 X0 X1)) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (\neg X1 \in X0) \quad (5)$$

**Theorem 1**

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow ((X0 \in X1) \Rightarrow ((k5\_ordinal3 X1 X0 \neq k1\_xboole\_0) \wedge (k1\_xboole\_0 \in k5\_ordinal3 X1 X0))))$$