

# t50\_ordinal5 (TMcUXoXyXjSwrbMhvWGr- fez9F1fMxGssRKA)

October 27, 2020

Let  $v1\_xboole\_0 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v4\_ordinal5 : \iota \Rightarrow o$  be given. Let  $k2\_ordinal5 : \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow ((\forall X1. (X1 \in X0) \Rightarrow ((v3\_ordinal1 \\ X1) \wedge (v4\_ordinal5 X1)) \wedge (\exists X2. ((v3\_ordinal1 X2) \wedge (v4\_ordinal5 \\ X2)) \wedge ((X1 \in X2) \wedge (X2 \in X0)))))) \Rightarrow ((v3\_ordinal1 (k3\_tarski X0)) \wedge ( \\ v4\_ordinal5 (k3\_tarski X0))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} \forall X0. (v3\_ordinal1 X0) \Rightarrow (\forall X1. ((v3\_ordinal1 X1) \wedge ( \\ v4\_ordinal5 X1)) \Rightarrow ((X1 = k2\_ordinal5 X0) \Leftrightarrow ((X0 \in X1) \wedge (\forall X2. \\ ((v3\_ordinal1 X2) \wedge (v4\_ordinal5 X2)) \Rightarrow ((X0 \in X2) \Rightarrow (r1\_ordinal1 \\ X1 X2)))))) \end{aligned} \quad (2)$$

## Theorem 1

$$\begin{aligned} \forall X0. (\neg v1\_xboole\_0 X0) \Rightarrow (((\forall X1. (X1 \in X0) \Rightarrow ((v3\_ordinal1 \\ X1) \wedge (v4\_ordinal5 X1))) \wedge (\forall X1. (v3\_ordinal1 X1) \Rightarrow ((X1 \in X0) \Rightarrow \\ (k2\_ordinal5 X1 \in X0)))) \Rightarrow ((v3\_ordinal1 (k3\_tarski X0)) \wedge (v4\_ordinal5 \\ (k3\_tarski X0)))) \end{aligned}$$