

# t26\_ordinal6 (TMce- hTw3pAVf72vAhmoLJrXtuvWPWx6puYC)

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Let  $v1\_ordinal6 : \iota \Rightarrow o$  be given. Let  $k1\_ordinal6 : \iota \Rightarrow \iota$  be given. Let  $k2\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k10\_ordinal2 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k2\_ordinal6 : \iota \Rightarrow \iota$  be given. Let  $k1\_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k2\_ordinal1 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_ordinal2 : \iota \Rightarrow o$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v1\_ordinal6 X0) \Rightarrow (\forall X1.(v1\_ordinal6 X1) \Rightarrow (( \\ & \quad \forall X2.\forall X3.((X2 \in X0) \wedge (X3 \in X1)) \Rightarrow (X2 \in X3)) \Rightarrow (k2\_ordinal6 \\ & (k2\_xboole\_0 X0 X1) = k1\_ordinal4 (k2\_ordinal6 X0) (k2\_ordinal6 \\ & \quad X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(k9\_xtuple\_0 (k2\_ordinal6 X0) = k1\_ordinal6 X0) \wedge (k10\_xtuple\_0 \\ & \quad (k2\_ordinal6 X0) = k2\_ordinal1 X0) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.(v1\_relat\_1 (k2\_ordinal6 X0)) \wedge ((v1\_funct\_1 (k2\_ordinal6 \\ & X0)) \wedge ((v5\_ordinal1 (k2\_ordinal6 X0)) \wedge (v1\_ordinal2 (k2\_ordinal6 \\ & \quad X0)))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.((v1\_relat\_1 X0) \wedge ((v5\_ordinal1 X0) \wedge (v1\_funct\_1 X0))) \Rightarrow \\ & \quad (\forall X1.((v1\_relat\_1 X1) \wedge ((v5\_ordinal1 X1) \wedge (v1\_funct\_1 \\ & \quad X1))) \Rightarrow (\forall X2.((v1\_relat\_1 X2) \wedge ((v5\_ordinal1 X2) \wedge (v1\_funct\_1 \\ & \quad X2)))) \Rightarrow ((X2 = k1\_ordinal4 X0 X1) \Leftrightarrow ((k9\_xtuple\_0 X2 = k10\_ordinal2 \\ & \quad (k9\_xtuple\_0 X0) (k9\_xtuple\_0 X1)) \wedge ((\forall X3.(v3\_ordinal1 \\ & X3) \Rightarrow ((X3 \in k9\_xtuple\_0 X0) \Rightarrow (k1\_funct\_1 X2 X3 = k1\_funct\_1 X0 X3)))) \wedge \\ & \quad (\forall X3.(v3\_ordinal1 X3) \Rightarrow ((X3 \in k9\_xtuple\_0 X1) \Rightarrow (k1\_funct\_1 \\ & \quad X2 (k10\_ordinal2 (k9\_xtuple\_0 X0) X3) = k1\_funct\_1 X1 X3)))))) \end{aligned} \quad (4)$$

**Theorem 1**

$$\forall X0.(v1\_ordinal6\ X0) \Rightarrow (\forall X1.(v1\_ordinal6\ X1) \Rightarrow ((\forall X2.\forall X3.((X2 \in X0) \wedge (X3 \in X1)) \Rightarrow (X2 \in X3)) \Rightarrow (k1\_ordinal6\ (k2\_xboole\_0\ X0\ X1) = k10\_ordinal2\ (k1\_ordinal6\ X0)\ (k1\_ordinal6\ X1))))$$