

# t41\_ordinal5 (TMaDHpDTNLGTGBtdpHMzcyd- FidzSftQ2PCn)

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Let  $k3\_ordinal5 : \iota \Rightarrow \iota$  be given. Let  $k6\_numbers : \iota$  be given. Let  $k1\_ordinal5 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k4\_ordinal1 : \iota$  be given. Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v5\_ordinal1 : \iota \Rightarrow o$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $v1\_ordinal2 : \iota \Rightarrow o$  be given. Let  $k1\_ordinal2 : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k1\_ordinal1 : \iota \Rightarrow \iota$  be given. Let  $k1\_funct\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $v4\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k5\_relat\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k8\_ordinal2 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned}
& \forall X0 : \iota \Rightarrow \iota \Rightarrow \iota. \forall X1 : \iota \Rightarrow \iota \Rightarrow \iota. \forall X2. \forall X3 : \\
& \iota \Rightarrow \iota. ((\forall X4. v3\_ordinal1 (X3 X4)) \wedge (v3\_ordinal1 X2) \wedge \\
& ((\forall X4. \forall X5. v3\_ordinal1 (X1 X4 X5)) \wedge (\forall X4. \forall X5. \\
& v3\_ordinal1 (X0 X4 X5)))) \Rightarrow ((\forall X4. (v3\_ordinal1 X4) \Rightarrow (\forall X5. \\
& (v3\_ordinal1 X5) \Rightarrow ((X5 = X3 X4) \Leftrightarrow (\exists X6. ((v5\_ordinal1 X6) \wedge \\
& ((v1\_relat\_1 X6) \wedge ((v1\_funct\_1 X6) \wedge (v1\_ordinal2 X6)))) \wedge ((X5 = \\
& k1\_ordinal2 X6) \wedge ((k9\_xtuple\_0 X6 = k1\_ordinal1 X4) \wedge ((k1\_funct\_1 \\
& X6 k1\_xboole\_0 = X2) \wedge ((\forall X7. (v3\_ordinal1 X7) \Rightarrow ((k1\_ordinal1 \\
& X7 \in k1\_ordinal1 X4) \Rightarrow (k1\_funct\_1 X6 (k1\_ordinal1 X7) = X1 X7 (k1\_funct\_1 \\
& X6 X7)))) \wedge (\forall X7. (v3\_ordinal1 X7) \Rightarrow (((X7 \in k1\_ordinal1 X4) \wedge \\
& (v4\_ordinal1 X7) \Rightarrow ((X7 = k1\_xboole\_0) \vee (k1\_funct\_1 X6 X7 = X0 X7 \\
& (k5\_relat\_1 X6 X7)))))))))) \Rightarrow (X3 k1\_xboole\_0 = X2))
\end{aligned} \tag{1}$$

Assume the following.

$$k6\_numbers = k1\_xboole\_0 \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.(v3\_ordinal1\ X1) \Rightarrow (( \\
& \quad X1 = k3\_ordinal5\ X0) \Leftrightarrow (\exists X2.((v1\_relat\_1\ X2) \wedge ((v1\_funct\_1 \\
& \quad X2) \wedge ((v5\_ordinal1\ X2) \wedge (v1\_ordinal2\ X2)))) \wedge ((X1 = k1\_ordinal2 \\
& \quad X2) \wedge ((k9\_xtuple\_0\ X2 = k1\_ordinal1\ X0) \wedge ((k1\_funct\_1\ X2\ k1\_xboole\_0 = \\
& \quad k1\_ordinal5\ k4\_ordinal1\ k4\_ordinal1) \wedge ((\forall X3.(v3\_ordinal1 \\
& \quad X3) \Rightarrow ((k1\_ordinal1\ X3 \in k1\_ordinal1\ X0) \Rightarrow (k1\_funct\_1\ X2\ (k1\_ordinal1 \\
& \quad X3) = k1\_ordinal5\ (k1\_funct\_1\ X2\ X3)\ k4\_ordinal1)))) \wedge (\forall X3. \\
& \quad (v3\_ordinal1\ X3) \Rightarrow (((X3 \in k1\_ordinal1\ X0) \wedge (v4\_ordinal1\ X3)) \Rightarrow ( \\
& \quad (X3 = k1\_xboole\_0) \vee (k1\_funct\_1\ X2\ X3 = k8\_ordinal2\ (k5\_relat\_1 \\
& \quad X2\ X3))))))))))))) \\
& \tag{3}
\end{aligned}$$

**Theorem 1**  $k3\_ordinal5\ k6\_numbers = k1\_ordinal5\ k4\_ordinal1\ k4\_ordinal1$ .