

# t72\_ordinal6 (TMVtEKN- pzxzEkpuixjyzHu7VUMJ3dWtKiSW)

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Let  $v3\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k12\_ordinal6 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $r1\_ordinal1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Assume the following.

$$\begin{aligned} & \forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v3\_ordinal1 X2) \Rightarrow ((r1\_ordinal1 X0 X1) \Leftrightarrow (r1\_ordinal1 (k12\_ordinal6 \\ & X2 X0) (k12\_ordinal6 X2 X1)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow ((r1\_ordinal1 X0 X1) \Leftrightarrow (\neg X1 \in X0))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((v3\_ordinal1 X0) \wedge (v3\_ordinal1 X1)) \Rightarrow (v3\_ordinal1 (k12\_ordinal6 X0 X1)) \tag{3}$$

**Theorem 1**

$$\begin{aligned} & \forall X0.(v3\_ordinal1 X0) \Rightarrow (\forall X1.(v3\_ordinal1 X1) \Rightarrow (\forall X2. \\ & (v3\_ordinal1 X2) \Rightarrow ((X0 \in X1) \Leftrightarrow (k12\_ordinal6 X2 X0 \in k12\_ordinal6 \\ & X2 X1)))) \end{aligned}$$