

# t7\_pua2mss1 (TMNVVrZAYtmoHdocinLE- jUt4YR26WFhxAcc)

October 27, 2020

Let  $m1\_eqrel\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m2\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k4\_card\_3 : \iota \Rightarrow \iota$  be given. Let  $v1\_relat\_1 : \iota \Rightarrow o$  be given. Let  $v1\_funct\_1 : \iota \Rightarrow o$  be given. Let  $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k10\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $k3\_tarski : \iota \Rightarrow \iota$  be given. Let  $k9\_xtuple\_0 : \iota \Rightarrow \iota$  be given. Let  $m1\_finseq\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $k1\_zfmisc\_1 : \iota \Rightarrow \iota$  be given. Let  $k5\_setfam\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $v1\_finseq\_1 : \iota \Rightarrow o$  be given. Let  $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$  be given. Let  $k5\_numbers : \iota$  be given. Let  $k1\_xboole\_0 : \iota$  be given. Let  $r1\_xboole\_0 : \iota \Rightarrow \iota \Rightarrow o$  be given. Let  $v7\_ordinal1 : \iota \Rightarrow o$  be given. Let  $k2\_finseq\_1 : \iota \Rightarrow \iota$  be given. Assume the following.

$$\begin{aligned} \forall X0. \forall X1. ((v1\_relat\_1 X1) \wedge (v1\_funct\_1 X1)) \Rightarrow (\neg( \\ r1\_tarski (k10\_xtuple\_0 X1) (k3\_tarski X0)) \wedge (\forall X2. ((v1\_relat\_1 \\ X2) \wedge (v1\_funct\_1 X2)) \Rightarrow (\neg(k9\_xtuple\_0 X2 = k9\_xtuple\_0 X1) \wedge ((r1\_tarski \\ (k10\_xtuple\_0 X2) X0) \wedge (X1 \in k4\_card\_3 X2)))))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Leftrightarrow (m1\_finseq\_1 X1 X0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \Rightarrow (k5\_setfam\_1 X0 X1 = k3\_tarski X1) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m2\_finseq\_1 X1 X0) \Rightarrow ((v1\_funct\_1 X1) \wedge ( \\ (v1\_finseq\_1 X1) \wedge (m1\_subset\_1 X1 (k1\_zfmisc\_1 (k2\_zfmisc\_1 k5\_numbers \\ X0)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. (m1\_finseq\_1 X1 X0) \Rightarrow ((v1\_relat\_1 X1) \wedge ( \\ (v1\_funct\_1 X1) \wedge (v1\_finseq\_1 X1))) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1\_eqrel\_1 X1 X0)\Rightarrow(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.((v1\_relat\_1 X1)\wedge((v1\_funct\_1 X1)\wedge(v1\_finseq\_1 X1)))\Rightarrow((m1\_finseq\_1 X1 X0)\Leftrightarrow(r1\_tarski (k10\_xtuple\_0 X1) X0)) \quad (7)$$

Assume the following.

$$\begin{aligned} &\forall X0.\forall X1.(m1\_subset\_1 X1 (k1\_zfmisc\_1 (k1\_zfmisc\_1 X0)))\Rightarrow((m1\_eqrel\_1 X1 X0)\Leftrightarrow((k5\_setfam\_1 X0 X1 = X0)\wedge(\forall X2. \\ &(m1\_subset\_1 X2 (k1\_zfmisc\_1 X0))\Rightarrow((X2 \in X1)\Rightarrow((X2 \neq k1\_xboole\_0)\wedge \\ &(\forall X3.(m1\_subset\_1 X3 (k1\_zfmisc\_1 X0))\Rightarrow(\neg(X3 \in X1)\wedge((X2 \neq \\ &X3)\wedge(\neg r1\_xboole\_0 X2 X3)))))))))) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0.(v1\_relat\_1 X0)\Rightarrow((v1\_finseq\_1 X0)\Leftrightarrow(\exists X1.(v7\_ordinal1 X1)\wedge(k9\_xtuple\_0 X0 = k2\_finseq\_1 X1))) \quad (9)$$

**Theorem 1**

$$\forall X0.\forall X1.(m1\_eqrel\_1 X1 X0)\Rightarrow(\forall X2.(m2\_finseq\_1 X2 X0)\Rightarrow(\exists X3.(m2\_finseq\_1 X3 X1)\wedge(X2 \in k4\_card\_3 X3)))$$