t42_ordinal6 (TMWvVCwFTRE4Jmsjwqfs7dTrS6tzXRk1tcT)

October 27, 2020

Let $v3\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_xboole\_0 : \iota \Rightarrow o$ be given. Let $v1\_classes2 : \iota \Rightarrow o$ be given. Let $v1\_funct\_1 : \iota \Rightarrow o$ be given. Let $v1\_funct\_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2\_ordinal1 : \iota \Rightarrow \iota$ be given. Let $m1\_subset\_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1\_zfmisc\_1 : \iota \Rightarrow \iota$ be given. Let $k2\_zfmisc\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4\_ordinal2 : \iota \Rightarrow \iota$ be given. Let $r1\_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_ordinal2 : \iota \Rightarrow \iota$ be given. Let $k1\_ordinal1 : \iota \Rightarrow \iota$ be given. Let $k3\_tarski : \iota \Rightarrow \iota$ be given. Let $k3\_card\_3 : \iota \Rightarrow \iota$ be given. Let $v1\_ordinal6 : \iota \Rightarrow o$ be given. Let $k6\_ordinal4 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1\_relat\_1 : \iota \Rightarrow o$ be given. Let $v1\_ordinal2 : \iota \Rightarrow o$ be given. Let $k10\_xtuple\_0 : \iota \Rightarrow \iota$ be given. Let $v5\_ordinal1 : \iota \Rightarrow o$ be given. Let $v1\_classes1 : \iota \Rightarrow o$ be given. Let $v1\_ordinal1 : \iota \Rightarrow o$ be given. Let $v2\_classes1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.r1\_tarski\ (k3\_ordinal2\ X0)\ (k1\_ordinal1\ (k3\_tarski\ (k2\_ordinal1\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.(v3\_ordinal1\ X0) \Rightarrow (\forall X1.((\neg v1\_xboole\_0\ X1) \wedge (v1\_classes2\ X1)) \Rightarrow ((X0 \in X1) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ X0\ (k2\_ordinal1\ X1)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ (k2\_ordinal1\ X1)))))) \Rightarrow (k3\_card\_3\ X2 \in X1)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.(m1\_subset\_1\ X0\ X1) \Rightarrow ((v1\_xboole\_0\ X1) \vee (X0 \in X1)) \tag{3}$$

Assume the following.

$$\forall X0.(v1\_ordinal6\ X0) \Leftrightarrow (k2\_ordinal1\ X0 = X0) \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.(X0 \in X1) \Rightarrow (m1\_subset\_1\ X0\ X1) \tag{5}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0)\wedge(v1\_classes2\ X0))\wedge((v3\_ordinal1\ X1)\wedge(m1\_subset\_1\ X1\ X0)))\Rightarrow(k6\_ordinal4\ X0\ X1 = k1\_ordinal1\ X1) \tag{6}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge(v1\_ordinal2\ X0)))\Rightarrow(v1\_ordinal6\ (k10\_xtuple\_0\ X0)) \tag{7}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge((v1\_funct\_1\ X0)\wedge((v5\_ordinal1\ X0)\wedge(v1\_ordinal2\ X0))))\Rightarrow(v3\_ordinal1\ (k3\_card\_3\ X0)) \tag{8}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0)\wedge(v1\_classes2\ X0))\wedge((v3\_ordinal1\ X1)\wedge(m1\_subset\_1\ X1\ X0)))\Rightarrow((v3\_ordinal1\ (k6\_ordinal4\ X0\ X1))\wedge((\neg v1\_xboole\_0\ (k6\_ordinal4\ X0\ X1))\wedge(m1\_subset\_1\ (k6\_ordinal4\ X0\ X1)\ X0))) \tag{9}$$

Assume the following.

$$\forall X0.((v5\_ordinal1\ X0)\wedge((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0)))\Rightarrow(k4\_ordinal2\ X0 = k3\_ordinal2\ (k10\_xtuple\_0\ X0)) \tag{10}$$

Assume the following.

$$\forall X0.((v1\_relat\_1\ X0)\wedge(v1\_funct\_1\ X0))\Rightarrow(k3\_card\_3\ X0 = k3\_tarski\ (k10\_xtuple\_0\ X0)) \tag{11}$$

Assume the following.

$$\forall X0.(v1\_classes1\ X0)\Leftrightarrow(\forall X1.\forall X2.((X1 \in X0)\wedge(r1\_tarski\ X2\ X1))\Rightarrow(X2 \in X0)) \tag{12}$$

Assume the following.

$$\forall X0.\forall X1.(((\neg v1\_xboole\_0\ X0)\wedge(v1\_classes2\ X0))\wedge(v3\_ordinal1\ X1))\Rightarrow(\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X1\ (k2\_ordinal1\ X0))))\Rightarrow(((v1\_funct\_1\ X2)\wedge(v1\_funct\_2\ X2\ X1\ (k2\_ordinal1\ X0)))\Rightarrow((v1\_funct\_1\ X2)\wedge((v5\_ordinal1\ X2)\wedge((v1\_funct\_2\ X2\ X1\ (k2\_ordinal1\ X0))\wedge(v1\_ordinal2\ X2)))))) \tag{13}$$

Assume the following.

$$\forall X0.(v1\_classes2\ X0)\Rightarrow((v1\_ordinal1\ X0)\wedge(v2\_classes1\ X0)) \tag{14}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ X1)))\Rightarrow(v1\_relat\_1\ X2) \tag{15}$$

Assume the following.

$$\forall X0.(v2\_classes1\ X0)\Rightarrow(v1\_classes1\ X0) \tag{16}$$

Theorem 1

$$\forall X0.(v3\_ordinal1\ X0)\Rightarrow(\forall X1.((\neg v1\_xboole\_0\ X1)\wedge(v1\_classes2\ X1))\Rightarrow((X0\in X1)\Rightarrow(\forall X2.((v1\_funct\_1\ X2)\wedge((v1\_funct\_2\ X2\ X0\ (k2\_ordinal1\ X1))\wedge(m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ (k2\_ordinal1\ X1))))))\Rightarrow(k4\_ordinal2\ X2\in X1))))$$