

t58_mcart_1
(TMbax5p7UF81KGuEqRUqLjKtsG5j2JgE2HP)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_mcart_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k5_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k8_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k7_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $v3_xtuple_0 : \iota \Rightarrow o$ be given. Let $k6_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xtuple_0 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k2_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k3_zfmisc_1 (k2_zfmisc_1 X0 X1) X2 X3 = k4_zfmisc_1 X0 X1 X2 X3 \quad (1)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow \\ & (\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3.(m1_subset_1 X3 (k3_zfmisc_1 \\ & X0 X1 X2)) \Rightarrow ((X3 \neq k1_mcart_1 X0 X1 X2 X3) \wedge ((X3 \neq k2_mcart_1 X0 X1 X2 \\ & X3) \wedge (X3 \neq k3_mcart_1 X0 X1 X2 X3)))))) \end{aligned} \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\ & \neg(X0 \in X1) \wedge ((X1 \in X2) \wedge ((X2 \in X3) \wedge ((X3 \in X4) \wedge ((X4 \in X5) \wedge (X5 \in X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 \\ & X0) \wedge ((\neg v1_xboole_0 X1) \wedge ((\neg v1_xboole_0 X2) \wedge ((\neg v1_xboole_0 X3) \wedge \\ & (m1_subset_1 X4 (k4_zfmisc_1 X0 X1 X2 X3)))))) \Rightarrow (k7_mcart_1 X0 X1 \\ & X2 X3 X4 = k2_xtuple_0 X4) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 \\ & X0)\wedge((\neg v1_xboole_0 X1)\wedge((\neg v1_xboole_0 X2)\wedge((\neg v1_xboole_0 X3)\wedge \\ & (m1_subset_1 X4 (k4_zfmisc_1 X0 X1 X2 X3))))))\Rightarrow(k6_mcart_1 X0 X1 \\ & X2 X3 X4 = k5_xtuple_0 X4) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 \\ & X0)\wedge((\neg v1_xboole_0 X1)\wedge((\neg v1_xboole_0 X2)\wedge((\neg v1_xboole_0 X3)\wedge \\ & (m1_subset_1 X4 (k4_zfmisc_1 X0 X1 X2 X3))))))\Rightarrow(k5_mcart_1 X0 X1 \\ & X2 X3 X4 = k8_xtuple_0 X4) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 \\ & X0)\wedge((\neg v1_xboole_0 X1)\wedge((\neg v1_xboole_0 X2)\wedge((\neg v1_xboole_0 X3)\wedge \\ & (m1_subset_1 X4 (k4_zfmisc_1 X0 X1 X2 X3))))))\Rightarrow(k4_mcart_1 X0 X1 \\ & X2 X3 X4 = k7_xtuple_0 X4) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & ((\neg v1_xboole_0 X1)\wedge((\neg v1_xboole_0 X2)\wedge(m1_subset_1 X3 (k3_zfmisc_1 \\ & X0 X1 X2))))))\Rightarrow(k3_mcart_1 X0 X1 X2 X3 = k2_xtuple_0 X3) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & ((\neg v1_xboole_0 X1)\wedge((\neg v1_xboole_0 X2)\wedge(m1_subset_1 X3 (k3_zfmisc_1 \\ & X0 X1 X2))))))\Rightarrow(k2_mcart_1 X0 X1 X2 X3 = k5_xtuple_0 X3) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.(v3_xtuple_0 X0)\Rightarrow(k6_xtuple_0 (k7_xtuple_0 X0) (k8_xtuple_0 X0) (k5_xtuple_0 X0) (k2_xtuple_0 X0) = X0) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(\neg v1_xboole_0 X1))\Rightarrow(\neg v1_xboole_0 (k2_zfmisc_1 X0 X1)) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.\forall X3.k6_xtuple_0 X0 X1 X2 X3 = k4_tarski (k3_xtuple_0 X0 X1 X2) X3 \quad (12)$$

Assume the following.

$$\forall X0.k5_xtuple_0 X0 = k2_xtuple_0 (k1_xtuple_0 X0) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.k4_tarSKI X0 X1 = k2_tarSKI (k2_tarSKI X0 X1) (k1_tarSKI X0) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.k3_xtuple_0 X0 X1 X2 = k4_tarSKI (k4_tarSKI X0 X1) X2 \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_tarSKI X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 = X0) \vee (X3 = X1))) \quad (16)$$

Assume the following.

$$\forall X0.k8_xtuple_0 X0 = k2_xtuple_0 (k1_xtuple_0 (k1_xtuple_0 X0)) \quad (17)$$

Assume the following.

$$\forall X0.k7_xtuple_0 X0 = k1_xtuple_0 (k1_xtuple_0 (k1_xtuple_0 X0)) \quad (18)$$

Assume the following.

$$\forall X0.\forall X1.k2_tarSKI X0 X1 = k2_tarSKI X1 X0 \quad (19)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0) \wedge \\ & ((\neg v1_xboole_0 X1) \wedge ((\neg v1_xboole_0 X2) \wedge (\neg v1_xboole_0 X3)))) \Rightarrow \\ & (\forall X4.(m1_subset_1 X4 (k4_zfmisc_1 X0 X1 X2 X3)) \Rightarrow (v3_xtuple_0 \\ & X4)) \end{aligned} \quad (20)$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.(\neg v1_xboole_0 X1) \Rightarrow \\ & (\forall X2.(\neg v1_xboole_0 X2) \Rightarrow (\forall X3.(\neg v1_xboole_0 X3) \Rightarrow \\ & (\forall X4.(m1_subset_1 X4 (k4_zfmisc_1 X0 X1 X2 X3)) \Rightarrow ((X4 \neq k4_mcart_1 \\ & X0 X1 X2 X3 X4) \wedge ((X4 \neq k5_mcart_1 X0 X1 X2 X3 X4) \wedge ((X4 \neq k6_mcart_1 X0 \\ & X1 X2 X3 X4) \wedge (X4 \neq k7_mcart_1 X0 X1 X2 X3 X4)))))))))) \end{aligned}$$