

t8_mesfun7c

(TMKShwpwNVtyKib9kjUkrkMhqVZPqY3p2td)

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Let $v1_xboole_0 : \iota \Rightarrow o$ 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 $k5_numbers : \iota$ be given. Let $k4_partfun1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ 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 $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_numbers : \iota$ be given. Let $k10_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_mesfun7c : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_nat_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. (((v1_funct_1 X2) \wedge \\ & ((v1_funct_2 X2 X0 X1) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 \\ & X0 X1)))))) \wedge ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 \\ & X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow ((r2_funct_2 X0 X1 X2 \\ & X3) \Leftrightarrow (X2 = X3)) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. ((\neg v1_xboole_0 X0) \wedge ((v1_funct_1 \\ & X1) \wedge ((v1_funct_2 X1 k5_numbers X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers X0)))))) \wedge (v7_ordinal1 X2)) \Rightarrow (k10_nat_1 \\ & X0 X1 X2 = k9_nat_1 X1 X2) \end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. \forall X1. \neg v1_xboole_0 (k4_partfun1 X0 X1) \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((v1_funct_1 X1) \wedge (\\ & (v1_funct_2 X1 k5_numbers (k4_partfun1 X0 k1_numbers)) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 X0 k1_numbers)))))) \Rightarrow \\ & ((v1_funct_1 (k1_mesfun7c X0 X1)) \wedge ((v1_funct_2 (k1_mesfun7c \\ & X0 X1) k5_numbers (k4_partfun1 X0 k7_numbers)) \wedge (m1_subset_1 (\\ & k1_mesfun7c X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 \\ & X0 k7_numbers)))))) \end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.((\neg v1_xboole_0 X0)\wedge(((v1_funct_1 \\ & X1)\wedge((v1_funct_2 X1 k5_numbers X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k2_zfmisc_1 k5_numbers X0))))\wedge(v7_ordinal1 X2)))\Rightarrow((v1_funct_1 \\ & (k10_nat_1 X0 X1 X2))\wedge((v1_funct_2 (k10_nat_1 X0 X1 X2) k5_numbers \\ & X0)\wedge(m1_subset_1 (k10_nat_1 X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 \\ & k5_numbers X0)))))) \end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((v1_funct_1 X1)\wedge(\\ & (v1_funct_2 X1 k5_numbers (k4_partfun1 X0 k1_numbers))\wedge(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 X0 k1_numbers))))))\Rightarrow \\ & (k1_mesfun7c X0 X1 = X1)) \end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((v1_funct_1 X1)\wedge(\\ & (v1_funct_2 X1 k5_numbers (k4_partfun1 X0 k1_numbers))\wedge(m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 X0 k1_numbers))))))\Rightarrow \\ & (\forall X2.(v7_ordinal1 X2)\Rightarrow(r2_funct_2 k5_numbers (k4_partfun1 \\ & X0 k7_numbers) (k10_nat_1 (k4_partfun1 X0 k7_numbers) (k1_mesfun7c \\ & X0 X1) X2) (k1_mesfun7c X0 (k10_nat_1 (k4_partfun1 X0 k1_numbers) \\ & X1 X2)))))) \end{aligned}$$