t14_mesfunc8 (TM-MVZYdG2cmi3JUsiquXnKMomLfxqB9A1vb)

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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 $k7\_numbers : \iota$ 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 $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7\_mesfunc8 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v10\_mesfunc5 : \iota \Rightarrow o$ be given. Let $k3\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k12\_supinf\_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_mesfunc8 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5\_mesfunc8 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2\_mesfunc5 : \iota \Rightarrow \iota$ be given. Let $k6\_rinfsup2 : \iota \Rightarrow \iota$ be given. Let $k5\_rinfsup2 : \iota \Rightarrow \iota$ be given. Let $k4\_mesfunc5 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6\_numbers : \iota$ be given. Assume the following.

$$\forall X0.((v1\_funct\_1\ X0) \wedge ((v1\_funct\_2\ X0\ k5\_numbers\ k7\_numbers) \wedge (m1\_subset\_1\ X0\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ k7\_numbers))))) \Rightarrow ((v10\_mesfunc5\ X0) \Rightarrow ((k2\_mesfunc5\ X0 = k6\_rinfsup2\ X0) \wedge (k2\_mesfunc5\ X0 = k5\_rinfsup2\ X0))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers))))))) \Rightarrow ((v1\_funct\_1\ (k7\_mesfunc8\ X0\ X1)) \wedge (m1\_subset\_1\ (k7\_mesfunc8\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers)))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ k7\_numbers))))))) \Rightarrow ((v1\_funct\_1\ (k6\_mesfunc8\ X0\ X1)) \wedge (m1\_subset\_1\ (k6\_mesfunc8\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ X0\ k7\_numbers)))) \tag{3}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0\ X0)\wedge((v1_funct_1\ X1)\wedge(
(v1_funct_2\ X1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))\wedge(m1_subset_1\
X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers)))))))\Rightarrow
((v1_funct_1\ (k5_mesfunc8\ X0\ X1))\wedge(m1_subset_1\ (k5_mesfunc8\
X0\ X1)\ (k1_zfmisc_1\ (k2_zfmisc_1\ X0\ k7_numbers))))$$

(4)

Assume the following.

$$\forall X0.\forall X1.\forall X2.((\neg v1_xboole_0\ X0)\wedge(((v1_funct_1\
X1)\wedge((v1_funct_2\ X1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))\wedge
(m1_subset_1\ X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k4_partfun1\
X0\ k7_numbers))))))\wedge(m1_subset_1\ X2\ X0)))\Rightarrow((v1_funct_1\ (k3_mesfunc5\
X0\ X1\ X2))\wedge((v1_funct_2\ (k3_mesfunc5\ X0\ X1\ X2)\ k5_numbers\ k7_numbers)\wedge
(m1_subset_1\ (k3_mesfunc5\ X0\ X1\ X2)\ (k1_zfmisc_1\ (k2_zfmisc_1\
k5_numbers\ k7_numbers)))))$$

(5)

Assume the following.

$$\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(
(v1_funct_2\ X1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))\wedge(m1_subset_1\
X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))))))\Rightarrow
(\forall X2.((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\
X0\ k7_numbers))))\Rightarrow((X2 = k7_mesfunc8\ X0\ X1)\Leftrightarrow((k1_relset_1\ X0\ X2 =
k1_relset_1\ X0\ (k4_mesfunc5\ X0\ k7_numbers\ X1\ k6_numbers))\wedge(\forall X3.
(m1_subset_1\ X3\ X0)\Rightarrow((X3 \in k1_relset_1\ X0\ X2)\Rightarrow(k12_supinf_2\ X2\
X3 = k2_mesfunc5\ (k3_mesfunc5\ X0\ X1\ X3))))))))$$

(6)

Assume the following.

$$\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(
(v1_funct_2\ X1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))\wedge(m1_subset_1\
X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))))))\Rightarrow
(\forall X2.((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1\
X0\ k7_numbers))))\Rightarrow((X2 = k6_mesfunc8\ X0\ X1)\Leftrightarrow((k1_relset_1\ X0\ X2 =
k1_relset_1\ X0\ (k4_mesfunc5\ X0\ k7_numbers\ X1\ k6_numbers))\wedge(\forall X3.
(m1_subset_1\ X3\ X0)\Rightarrow((X3 \in k1_relset_1\ X0\ X2)\Rightarrow(k12_supinf_2\ X2\
X3 = k5_rinfsup2\ (k3_mesfunc5\ X0\ X1\ X3))))))))$$

(7)

Assume the following.

$$\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(
(v1_funct_2\ X1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))\wedge(m1_subset_1
X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))))))\Rightarrow
(\forall X2.((v1_funct_1\ X2)\wedge(m1_subset_1\ X2\ (k1_zfmisc_1\ (k2_zfmisc_1
X0\ k7_numbers))))\Rightarrow((X2 = k5_mesfunc8\ X0\ X1)\Leftrightarrow((k1_relset_1\ X0\ X2 =
k1_relset_1\ X0\ (k4_mesfunc5\ X0\ k7_numbers\ X1\ k6_numbers))\wedge(\forall X3.
(m1_subset_1\ X3\ X0)\Rightarrow((X3 \in k1_relset_1\ X0\ X2)\Rightarrow(k12_supinf_2\ X2
X3 = k6_rinfsup2\ (k3_mesfunc5\ X0\ X1\ X3))))))))) \tag{8}$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(
(v1_funct_2\ X1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))\wedge(m1_subset_1
X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k4_partfun1\ X0\ k7_numbers))))))\Rightarrow
(\forall X2.(m1_subset_1\ X2\ X0)\Rightarrow(((X2 \in k1_relset_1\ X0\ (k7_mesfunc8
X0\ X1))\wedge(v10_mesfunc5\ (k3_mesfunc5\ X0\ X1\ X2)))\Rightarrow((k12_supinf_2
(k7_mesfunc8\ X0\ X1)\ X2 = k12_supinf_2\ (k6_mesfunc8\ X0\ X1)\ X2)\wedge(k12_supinf_2
(k7_mesfunc8\ X0\ X1)\ X2 = k12_supinf_2\ (k5_mesfunc8\ X0\ X1)\ X2)))))$$