t34_mesfun9c (TMNCj3RjDxP2vaRdxhm36vLsJRVGdJh2yhb)

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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 $k2\_numbers : \iota$ 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 $v1\_mesfunc8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3\_mesfun9c : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v7\_ordinal1 : \iota \Rightarrow o$ be given. Let $k1\_relset\_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0.(\neg v1\_xboole\_0\ X0) \Rightarrow (\forall X1.(v7\_ordinal1\ X1) \Rightarrow (\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ k5\_numbers\ (k4\_partfun1\ X0\ k2\_numbers)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ k2\_numbers)))))) \Rightarrow ((v1\_mesfunc8\ X2\ X0\ k2\_numbers) \Rightarrow (k1\_relset\_1\ X0\ (k4\_mesfunc5\ X0\ k2\_numbers\ (k3\_mesfun9c\ X0\ X2)\ X1) = k1\_relset\_1\ X0\ (k4\_mesfunc5\ X0\ k2\_numbers\ X2\ k6\_numbers)))))) \tag{1}$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1\_xboole\_0\ X0) \wedge ((v1\_funct\_1\ X1) \wedge ((v1\_funct\_2\ X1\ k5\_numbers\ (k4\_partfun1\ X0\ k2\_numbers)) \wedge (m1\_subset\_1\ X1\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ k2\_numbers))))))) \Rightarrow ((v1\_funct\_1\ (k3\_mesfun9c\ X0\ X1)) \wedge ((v1\_funct\_2\ (k3\_mesfun9c\ X0\ X1)\ k5\_numbers\ (k4\_partfun1\ X0\ k2\_numbers)) \wedge (m1\_subset\_1\ (k3\_mesfun9c\ X0\ X1)\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ k2\_numbers)))))) \tag{2}$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((v1\_funct\_1\ X2) \wedge ((v1\_funct\_2\ X2\ k5\_numbers\ (k4\_partfun1\ X0\ X1)) \wedge (m1\_subset\_1\ X2\ (k1\_zfmisc\_1\ (k2\_zfmisc\_1\ k5\_numbers\ (k4\_partfun1\ X0\ X1)))))) \Rightarrow ((v1\_mesfunc8\ X2\ X0\ X1) \Leftrightarrow (\forall X3.(v7\_ordinal1\ X3) \Rightarrow (\forall X4.(v7\_ordinal1\ X4) \Rightarrow (k1\_relset\_1\ X0\ (k4\_mesfunc5\ X0\ X1\ X2\ X3) = k1\_relset\_1\ X0\ (k4\_mesfunc5\ X0\ X1\ X2\ X4))))) \tag{3}$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0\ X0)\Rightarrow(\forall X1.((v1_funct_1\ X1)\wedge(
(v1_funct_2\ X1\ k5_numbers\ (k4_partfun1\ X0\ k2_numbers))\wedge(m1_subset_1
X1\ (k1_zfmisc_1\ (k2_zfmisc_1\ k5_numbers\ (k4_partfun1\ X0\ k2_numbers))))))\Rightarrow
((v1_mesfunc8\ X1\ X0\ k2_numbers)\Rightarrow(v1_mesfunc8\ (k3_mesfun9c\ X0
X1)\ X0\ k2_numbers)))$$