

t43_mesfunc9
(TMJGgArTsbM1fmvuj5Hy64h6zzRpd3CxzRk)

October 27, 2020

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 $v2_mesfunc9 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_mesfunc8 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_mesfunc9 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\ & (v1_funct_2 X1 k5_numbers (k4_partfun1 X0 k7_numbers)) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 X0 k7_numbers)))))) \Rightarrow \\ & (\forall X2. (v7_ordinal1 X2) \Rightarrow (((v2_mesfunc9 X1 X0) \wedge (v1_mesfunc8 \\ & X1 X0 k7_numbers)) \Rightarrow (k1_relset_1 X0 (k4_mesfunc5 X0 k7_numbers \\ & (k4_mesfunc9 X0 X1) X2) = k1_relset_1 X0 (k4_mesfunc5 X0 k7_numbers \\ & X1 k6_numbers)))))) \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((v1_funct_1 X1) \wedge (\\ & (v1_funct_2 X1 k5_numbers (k4_partfun1 X0 k7_numbers)) \wedge (m1_subset_1 \\ & X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 X0 k7_numbers)))))) \Rightarrow \\ & ((v1_funct_1 (k4_mesfunc9 X0 X1)) \wedge ((v1_funct_2 (k4_mesfunc9 \\ & X0 X1) k5_numbers (k4_partfun1 X0 k7_numbers)) \wedge (m1_subset_1 (\\ & k4_mesfunc9 X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 \\ & X0 k7_numbers)))))) \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 \\
& X2 k5_numbers (k4_partfun1 X0 X1)) \wedge (m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 k5_numbers (k4_partfun1 X0 X1))))) \Rightarrow ((v1_mesfunc8 \\
& X2 X0 X1) \Leftrightarrow (\forall X3. (v7_ordinal1 X3) \Rightarrow (\forall X4. (v7_ordinal1 \\
& X4) \Rightarrow (k1_reset_1 X0 (k4_mesfunc5 X0 X1 X2 X3) = k1_reset_1 X0 (k4_mesfunc5 \\
& X0 X1 X2 X4))))))
\end{aligned} \tag{3}$$

Theorem 1

$$\begin{aligned}
& \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((v1_funct_1 X1) \wedge (\\
& (v1_funct_2 X1 k5_numbers (k4_partfun1 X0 k7_numbers)) \wedge (m1_subset_1 \\
& X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers (k4_partfun1 X0 k7_numbers)))))) \Rightarrow \\
& (((v2_mesfunc9 X1 X0) \wedge (v1_mesfunc8 X1 X0 k7_numbers)) \Rightarrow (v1_mesfunc8 \\
& (k4_mesfunc9 X0 X1) X0 k7_numbers)))
\end{aligned}$$