

t29_seq_1 (TMGMUXVLT- TnsyzA3WsqwEiLjWX4yv18GLp9)

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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 $k1_numbers : \iota$ 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 $r2_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k47_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k32_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k30_valued_1 : \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0.((v1_funct_1 X0) \wedge ((v1_funct_2 X0 k5_numbers k1_numbers) \wedge \\
 & (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
 & (\forall X1.((v1_funct_1 X1) \wedge ((v1_funct_2 X1 k5_numbers k1_numbers) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers)))))) \Rightarrow \\
 & (r2_funct_2 k5_numbers k1_numbers (k47_valued_1 k5_numbers k1_numbers \\
 & k1_numbers X0 X1) (k3_valued_1 k5_numbers k1_numbers k1_numbers \\
 & X0 (k32_valued_1 k5_numbers k1_numbers X1))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. ((v3_membered X1) \wedge ((v1_funct_1 \\
 & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (k32_valued_1 \\
 & X0 X1 X2 = k30_valued_1 X2)
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. \forall X2. ((v3_membered X1) \wedge ((v1_funct_1 \\
 & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))))) \Rightarrow (k32_valued_1 \\
 & X0 X1 (k32_valued_1 X0 X1 X2) = X2)
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 X1)\wedge(v3_membered \\ X1))\wedge((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(m1_subset_1 X2 \\ (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))))\Rightarrow((v1_funct_1 (k30_valued_1 \\ X2))\wedge(v1_partfun1 (k30_valued_1 X2) X0)) \end{aligned} \quad (4)$$

Assume the following.

$$v3_membered k1_numbers \quad (5)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.((v3_membered X1)\wedge((v1_funct_1 \\ X2)\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))))\Rightarrow((v1_funct_1 \\ (k32_valued_1 X0 X1 X2))\wedge(m1_subset_1 (k32_valued_1 X0 X1 X2) (\\ k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\ (k2_zfmisc_1 X0 X1)))\Rightarrow((v1_partfun1 X2 X0)\Rightarrow(v1_funct_2 X2 X0 X1)) \end{aligned} \quad (8)$$

Theorem 1

$$\begin{aligned} \forall X0.((v1_funct_1 X0)\wedge((v1_funct_2 X0 k5_numbers k1_numbers)\wedge \\ (m1_subset_1 X0 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers))))\Rightarrow \\ (\forall X1.((v1_funct_1 X1)\wedge((v1_funct_2 X1 k5_numbers k1_numbers)\wedge \\ (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 k5_numbers k1_numbers))))\Rightarrow \\ (r2_funct_2 k5_numbers k1_numbers (k47_valued_1 k5_numbers k1_numbers \\ k1_numbers X0 (k32_valued_1 k5_numbers k1_numbers X1)) (k3_valued_1 \\ k5_numbers k1_numbers k1_numbers X0 X1))) \end{aligned}$$