

t88_valued_2
(TMRToasWa91cYY35gLRA7bVXtvtJBi6fstV)

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Let $v1_valued_2 : \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ 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 $k84_valued_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_valued_2 : \iota \Rightarrow \iota$ be given. Let $k1_valued_2 : \iota \Rightarrow \iota$ be given. Let $k73_valued_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (v1_valued_2 X3) \Rightarrow \\
& (\forall X4. (v1_valued_2 X4) \Rightarrow (\forall X5. (v1_valued_2 X5) \Rightarrow (\\
& \forall X6. ((v1_funct_1 X6) \wedge (m1_subset_1 X6 (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 X3)))) \Rightarrow (\forall X7. ((v1_funct_1 X7) \wedge (m1_subset_1 X7 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X1 X4)))) \Rightarrow (\forall X8. ((v1_funct_1 X8) \wedge (m1_subset_1 \\
& X8 (k1_zfmisc_1 (k2_zfmisc_1 X2 X5)))) \Rightarrow (k84_valued_2 X0 (k3_xboole_0 \\
& X1 X2) X3 (k2_valued_2 (k3_xboole_0 (k1_valued_2 X4) (k1_valued_2 \\
& X5))) X6 (k73_valued_2 X1 X2 X4 X5 X7 X8) = k73_valued_2 (k3_xboole_0 \\
& X0 X1) (k3_xboole_0 X0 X2) (k2_valued_2 (k3_xboole_0 (k1_valued_2 \\
& X3) (k1_valued_2 X4)) (k2_valued_2 (k3_xboole_0 (k1_valued_2 \\
& X3) (k1_valued_2 X5))) (k84_valued_2 X0 X1 X3 X4 X6 X7) (k84_valued_2 \\
& X0 X2 X3 X5 X6 X8)))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (v1_valued_2 X2) \Rightarrow (\forall X3. \\
& (v1_valued_2 X3) \Rightarrow (\forall X4. ((v1_funct_1 X4) \wedge (m1_subset_1 \\
& X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2)))) \Rightarrow (\forall X5. ((v1_funct_1 \\
& X5) \wedge (m1_subset_1 X5 (k1_zfmisc_1 (k2_zfmisc_1 X1 X3)))) \Rightarrow (k84_valued_2 \\
& X0 X1 X2 X3 X4 X5 = k84_valued_2 X1 X0 X3 X2 X5 X4))))
\end{aligned} \tag{2}$$

Assume the following.

$$\forall X0. v1_valued_2 (k2_valued_2 X0) \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.\forall X5. \\
& ((v1_valued_2 X2)\wedge((v1_valued_2 X3)\wedge(((v1_funct_1 X4)\wedge(m1_subset_1 \\
& X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2))))\wedge((v1_funct_1 X5)\wedge(m1_subset_1 \\
& X5 (k1_zfmisc_1 (k2_zfmisc_1 X1 X3))))))\Rightarrow((v1_funct_1 (k73_valued_2 \\
& X0 X1 X2 X3 X4 X5))\wedge(m1_subset_1 (k73_valued_2 X0 X1 X2 X3 X4 X5) (k1_zfmisc_1 \\
& (k2_zfmisc_1 (k3_xboole_0 X0 X1) (k2_valued_2 (k3_xboole_0 (k1_valued_2 \\
& X2) (k1_valued_2 X3)))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \tag{5}$$

Theorem 1

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.(v1_valued_2 X3)\Rightarrow \\
& (\forall X4.(v1_valued_2 X4)\Rightarrow(\forall X5.(v1_valued_2 X5)\Rightarrow(\\
& \forall X6.((v1_funct_1 X6)\wedge(m1_subset_1 X6 (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 X3))))\Rightarrow(\forall X7.((v1_funct_1 X7)\wedge(m1_subset_1 X7 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X1 X4))))\Rightarrow(\forall X8.((v1_funct_1 X8)\wedge(m1_subset_1 \\
& X8 (k1_zfmisc_1 (k2_zfmisc_1 X2 X5))))\Rightarrow(k84_valued_2 (k3_xboole_0 \\
& X1 X2) X0 (k2_valued_2 (k3_xboole_0 (k1_valued_2 X4) (k1_valued_2 \\
& X5))) X3 (k73_valued_2 X1 X2 X4 X5 X7 X8) X6 = k73_valued_2 (k3_xboole_0 \\
& X1 X0) (k3_xboole_0 X2 X0) (k2_valued_2 (k3_xboole_0 (k1_valued_2 \\
& X4) (k1_valued_2 X3))) (k2_valued_2 (k3_xboole_0 (k1_valued_2 \\
& X5) (k1_valued_2 X3))) (k84_valued_2 X1 X0 X4 X3 X7 X6) (k84_valued_2 \\
& X2 X0 X5 X3 X8 X6))))))
\end{aligned}$$