

t33_supinf_2

(TMJo8sANdakgxQbMGb4b2szyoCRWvSbNycR)

October 27, 2020

Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k7_numbers : \iota$ 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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k13_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 k7_numbers))) \Rightarrow (\forall X2. ((\neg v1_xboole_0 \\
 & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 k7_numbers))) \Rightarrow (\forall X3. \\
 & ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
 & (k2_zfmisc_1 X0 X1)))))) \Rightarrow (\forall X4. ((v1_funct_1 X4) \wedge ((v1_funct_2 \\
 & X4 X0 X2) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2)))))) \Rightarrow \\
 & (((v2_supinf_2 X3 X0 X1) \wedge (v2_supinf_2 X4 X0 X2)) \Rightarrow (v2_supinf_2 \\
 & (k13_supinf_2 X0 X1 X2 X3 X4) X0 (k5_supinf_2 X1 X2))))))
 \end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 k7_numbers))) \Rightarrow (\forall X2. ((\neg v1_xboole_0 \\
 & X2) \wedge (m1_subset_1 X2 (k1_zfmisc_1 k7_numbers))) \Rightarrow (\forall X3. \\
 & ((v1_funct_1 X3) \wedge ((v1_funct_2 X3 X0 X1) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\
 & (k2_zfmisc_1 X0 X1)))))) \Rightarrow (\forall X4. ((v1_funct_1 X4) \wedge ((v1_funct_2 \\
 & X4 X0 X2) \wedge (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2)))))) \Rightarrow \\
 & (((v1_supinf_2 X3 X0 X1) \wedge (v1_supinf_2 X4 X0 X2)) \Rightarrow (v1_supinf_2 \\
 & (k13_supinf_2 X0 X1 X2 X3 X4) X0 (k5_supinf_2 X1 X2))))))
 \end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
 & \forall X0. \forall X1. ((m1_subset_1 X0 (k1_zfmisc_1 k7_numbers)) \wedge \\
 & (m1_subset_1 X1 (k1_zfmisc_1 k7_numbers))) \Rightarrow (m1_subset_1 (k5_supinf_2 \\
 & X0 X1) (k1_zfmisc_1 k7_numbers))
 \end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((\neg v1_xboole_0 \\
& X0)\wedge(((\neg v1_xboole_0 X1)\wedge(m1_subset_1 X1 (k1_zfmisc_1 k7_numbers)))\wedge \\
& ((\neg v1_xboole_0 X2)\wedge(m1_subset_1 X2 (k1_zfmisc_1 k7_numbers)))\wedge \\
& (((v1_funct_1 X3)\wedge((v1_funct_2 X3 X0 X1)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1))))\wedge((v1_funct_1 X4)\wedge((v1_funct_2 X4 X0 X2)\wedge \\
& (m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2))))))))\Rightarrow((v1_funct_1 \\
& (k13_supinf_2 X0 X1 X2 X3 X4)\wedge((v1_funct_2 (k13_supinf_2 X0 X1 \\
& X2 X3 X4) X0 (k5_supinf_2 X1 X2))\wedge(m1_subset_1 (k13_supinf_2 X0 \\
& X1 X2 X3 X4) (k1_zfmisc_1 (k2_zfmisc_1 X0 (k5_supinf_2 X1 X2))))))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 k7_numbers))\Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow \\
& (((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge((v1_supinf_2 X2 X0 X1)\wedge \\
& (v2_supinf_2 X2 X0 X1))))\Rightarrow((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 \\
& X1)\wedge(v3_supinf_2 X2 X0 X1))))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 k7_numbers))\Rightarrow \\
& (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow \\
& (((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge(v3_supinf_2 X2 X0 X1)))\Rightarrow \\
& ((v1_funct_1 X2)\wedge((v1_funct_2 X2 X0 X1)\wedge((v1_supinf_2 X2 X0 X1)\wedge \\
& (v2_supinf_2 X2 X0 X1))))))
\end{aligned} \tag{6}$$

Theorem 1

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((\neg v1_xboole_0 X1)\wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 k7_numbers)))\Rightarrow(\forall X2.((\neg v1_xboole_0 \\
& X2)\wedge(m1_subset_1 X2 (k1_zfmisc_1 k7_numbers)))\Rightarrow(\forall X3. \\
& ((v1_funct_1 X3)\wedge((v1_funct_2 X3 X0 X1)\wedge(m1_subset_1 X3 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1))))\Rightarrow(\forall X4.((v1_funct_1 X4)\wedge((v1_funct_2 \\
& X4 X0 X2)\wedge(m1_subset_1 X4 (k1_zfmisc_1 (k2_zfmisc_1 X0 X2))))\Rightarrow \\
& (((v3_supinf_2 X3 X0 X1)\wedge(v3_supinf_2 X4 X0 X2))\Rightarrow(v3_supinf_2 \\
& (k13_supinf_2 X0 X1 X2 X3 X4) X0 (k5_supinf_2 X1 X2))))))
\end{aligned}$$