

t37_measure1

(TMVYPYGe3JtnUcXiwSmFsE6vxuMoeqjd5mi)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v4_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_numbers : \iota$ be given. Let $v10_valued_0 : \iota \Rightarrow o$ be given. Let $v6_supinf_2 : \iota \Rightarrow o$ be given. Let $v4_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k3_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v2_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v2_finsub_1 : \iota \Rightarrow o$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $m1_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_supinf_2 : \iota$ be given. Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v1_prob_1 X1 X0) \wedge \\
& ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X1 k7_numbers) \wedge \\
& ((v10_valued_0 X2) \wedge ((v6_supinf_2 X2) \wedge ((v4_measure1 X2 X0 X1) \wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))) \Rightarrow \\
& ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X1 k7_numbers) \wedge ((v10_valued_0 \\
& X2) \wedge ((v6_supinf_2 X2) \wedge ((v2_measure1 X2 X0 X1) \wedge (m1_subset_1 X2 \\
& (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))))))
\end{aligned} \tag{1}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v2_finsub_1 X1) \wedge \\
& ((v1_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X1 k7_numbers) \wedge \\
& ((v10_valued_0 X2) \wedge ((v6_supinf_2 X2) \wedge ((v2_measure1 X2 X0 X1) \wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))) \Rightarrow \\
& (\forall X3. (m2_subset_1 X3 (k1_zfmisc_1 X0) X1) \Rightarrow (\forall X4. \\
& (m1_measure1 X4 X0 X1 X2) \Rightarrow ((k12_supinf_2 X2 (k1_measure1 X0 X1 X3 \\
& X4) = k12_supinf_2 X2 X3) \wedge ((k12_supinf_2 X2 (k2_measure1 X0 X1 X3 \\
& X4) = k1_supinf_2) \wedge (k12_supinf_2 X2 (k3_measure1 X0 X1 X3 X4) = k12_supinf_2 \\
& X2 X3))))))
\end{aligned} \tag{2}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v2_finsub_1 X1) \wedge \\
& ((v1_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X1 k7_numbers) \wedge \\
& ((v10_valued_0 X2) \wedge ((v6_supinf_2 X2) \wedge ((v2_measure1 X2 X0 X1) \wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))) \Rightarrow \\
& (\forall X3. (m1_measure1 X3 X0 X1 X2) \Rightarrow (\forall X4. (m1_measure1 \\
& X4 X0 X1 X2) \Rightarrow ((m1_measure1 (k1_measure1 X0 X1 X3 X4) X0 X1 X2) \wedge ((m1_measure1 \\
& (k2_measure1 X0 X1 X3 X4) X0 X1 X2) \wedge (m1_measure1 (k3_measure1 X0 \\
& X1 X3 X4) X0 X1 X2))))))
\end{aligned} \tag{3}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge \\
& (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 \\
& X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1))
\end{aligned} \tag{4}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X1) \wedge ((v1_prob_1 \\
& X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X1 k7_numbers) \wedge ((\\
& v10_valued_0 X2) \wedge ((v6_supinf_2 X2) \wedge ((v4_measure1 X2 X0 X1) \wedge (\\
& m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers)))))))))) \Rightarrow \\
& (\forall X3. (m2_measure1 X3 X0 X1 X2) \Rightarrow (m2_subset_1 X3 (k1_zfmisc_1 \\
& X0) X1))
\end{aligned} \tag{5}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. (((\neg v1_xboole_0 X1) \wedge ((v2_finsub_1 \\
& X1) \wedge ((v1_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0)))))) \wedge ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X1 k7_numbers) \wedge ((\\
& v10_valued_0 X2) \wedge ((v6_supinf_2 X2) \wedge ((v2_measure1 X2 X0 X1) \wedge (\\
& m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers)))))))))) \Rightarrow \\
& (\forall X3. (m1_measure1 X3 X0 X1 X2) \Rightarrow (m2_subset_1 X3 (k1_zfmisc_1 \\
& X0) X1))
\end{aligned} \tag{6}$$

Assume the following.

$$\begin{aligned}
& \forall X0. \forall X1. \forall X2. \forall X3. (((\neg v1_xboole_0 \\
& X1) \wedge ((v2_finsub_1 X1) \wedge ((v1_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\
& (k1_zfmisc_1 X0)))))) \wedge ((m1_subset_1 X2 X1) \wedge (m1_subset_1 X3 X1))) \Rightarrow \\
& (m2_subset_1 (k3_measure1 X0 X1 X2 X3) (k1_zfmisc_1 X0) X1)
\end{aligned} \tag{7}$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.(((\neg v1_xboole_0 \\ & X1)\wedge((v2_finsub_1 X1)\wedge((v1_prob_1 X1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0))))))\wedge((m1_subset_1 X2 X1)\wedge(m1_subset_1 X3 X1)))\Rightarrow \\ & (m2_subset_1 (k2_measure1 X0 X1 X2 X3) (k1_zfmisc_1 X0) X1) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X1)\wedge((v1_prob_1 X1 X0)\wedge \\ & ((v4_prob_1 X1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0))))))\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 X1 k7_numbers)\wedge \\ & ((v10_valued_0 X2)\wedge((v6_supinf_2 X2)\wedge((v4_measure1 X2 X0 X1)\wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))))\Rightarrow \\ & (\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 X0) X1)\Rightarrow((m2_measure1 \\ & X3 X0 X1 X2)\Leftrightarrow(k12_supinf_2 X2 X3 = k1_supinf_2))) \end{aligned} \quad (9)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X1)\wedge((v2_finsub_1 X1)\wedge \\ & ((v1_prob_1 X1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0))))))\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 X1 k7_numbers)\wedge \\ & ((v10_valued_0 X2)\wedge((v6_supinf_2 X2)\wedge((v2_measure1 X2 X0 X1)\wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))))\Rightarrow \\ & (\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 X0) X1)\Rightarrow((m1_measure1 \\ & X3 X0 X1 X2)\Leftrightarrow(k12_supinf_2 X2 X3 = k1_supinf_2))) \end{aligned} \quad (10)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_xboole_0 X1)) \quad (11)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0)))\Rightarrow(((\neg v1_xboole_0 X1)\wedge((v1_prob_1 X1 X0)\wedge(v4_prob_1 X1 X0)))\Rightarrow \\ & ((\neg v1_xboole_0 X1)\wedge((v2_finsub_1 X1)\wedge((v1_prob_1 X1 X0)\wedge(v4_prob_1 \\ & X1 X0)))))) \end{aligned} \quad (12)$$

Theorem 1

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 X1)\wedge((v1_prob_1 X1 X0)\wedge \\ & ((v4_prob_1 X1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0))))))\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 X1 k7_numbers)\wedge \\ & ((v10_valued_0 X2)\wedge((v6_supinf_2 X2)\wedge((v4_measure1 X2 X0 X1)\wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))))\Rightarrow \\ & (\forall X3.(m2_measure1 X3 X0 X1 X2)\Rightarrow(\forall X4.(m2_measure1 \\ & X4 X0 X1 X2)\Rightarrow((m2_measure1 (k1_measure1 X0 X1 X3 X4) X0 X1 X2)\wedge((m2_measure1 \\ & (k2_measure1 X0 X1 X3 X4) X0 X1 X2)\wedge(m2_measure1 (k3_measure1 X0 \\ & X1 X3 X4) X0 X1 X2)))))) \end{aligned}$$