

t8_measure1 (TMZiTqc- Coucmu22kea6TYJWThzSH5fPkFMn)

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Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_finsub_1 : \iota \Rightarrow o$ be given. Let $v1_prob_1 : \iota \Rightarrow \iota \Rightarrow o$ 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 $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ 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 $v2_measure1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $m2_subset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k12_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_xboole_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k4_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xxreal_3 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_supinf_2 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v4_finsub_1 : \iota \Rightarrow o$ be given. Let $k2_finsub_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_supinf_2 : \iota$ be given. Let $k1_finsub_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v2_valued_0 : \iota \Rightarrow o$ be given. Let $k1_funct_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v3_finsub_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_finsub_1 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. r1_xboole_0 (k4_xboole_0 X0 X1) X1 \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (r1_tarski X0 X1) \Rightarrow (X1 = k2_xboole_0 X0 (k4_xboole_0 X1 X0)) \quad (2)$$

Assume the following.

$$\forall X0. (v1_xxreal_0 X0) \Rightarrow (\forall X1. (v1_xxreal_0 X1) \Rightarrow ((r1_xxreal_0 k6_numbers X0) \Rightarrow (r1_xxreal_0 X1 (k1_xxreal_3 X1 X0)))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge ((\neg v1_xboole_0 X1) \wedge (m1_subset_1 X1 (k1_zfmisc_1 X0)))) \Rightarrow (\forall X2. (m2_subset_1 X2 X0 X1) \Leftrightarrow (m1_subset_1 X2 X1)) \quad (4)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.((m1_subset_1 X0 k7_numbers)\wedge(m1_subset_1 X1 k7_numbers))\Rightarrow(k3_supinf_2 X0 X1 = k1_xxreal_3 X0 X1) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 X0)\wedge(v4_finsub_1 X0))\wedge((m1_subset_1 X1 X0)\wedge(m1_subset_1 X2 X0)))\Rightarrow(k2_finsub_1 X0 X1 X2 = k4_xboole_0 X1 X2) \quad (7)$$

Assume the following.

$$k1_supinf_2 = k1_xboole_0 \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 X0)\wedge(v4_finsub_1 X0))\wedge((m1_subset_1 X1 X0)\wedge(m1_subset_1 X2 X0)))\Rightarrow(k1_finsub_1 X0 X1 X2 = k2_xboole_0 X1 X2) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_valued_0 X0)))\Rightarrow(k12_supinf_2 X0 X1 = k1_funct_1 X0 X1) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_valued_0 X0)))\Rightarrow(v1_xxreal_0 (k1_funct_1 X0 X1)) \quad (11)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 X0)\wedge(v4_finsub_1 X0))\wedge((m1_subset_1 X1 X0)\wedge(m1_subset_1 X2 X0)))\Rightarrow(m1_subset_1 (k2_finsub_1 X0 X1 X2) X0) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.((v1_relat_1 X0)\wedge((v1_funct_1 X0)\wedge(v2_valued_0 X0)))\Rightarrow(m1_subset_1 (k12_supinf_2 X0 X1) k7_numbers) \quad (14)$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.((\neg v1_xboole_0 X1)\wedge((v2_finsub_1 X1)\wedge \\
& ((v1_prob_1 X1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0))))))\Rightarrow(\forall X2.((v1_funct_1 X2)\wedge((v1_funct_2 X2 X1 k7_numbers)\wedge \\
& (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 k7_numbers))))))\Rightarrow \\
& ((v2_measure1 X2 X0 X1)\Leftrightarrow(\forall X3.(m2_subset_1 X3 (k1_zfmisc_1 \\
& X0) X1)\Rightarrow(\forall X4.(m2_subset_1 X4 (k1_zfmisc_1 X0) X1)\Rightarrow((r1_xboole_0 \\
& X3 X4)\Rightarrow(k12_supinf_2 X2 (k1_finsub_1 X1 X3 X4) = k3_supinf_2 (k12_supinf_2 \\
& X2 X3) (k12_supinf_2 X2 X4))))))
\end{aligned} \tag{15}$$

Assume the following.

$$\begin{aligned}
& \forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((v1_funct_1 X1)\wedge(\\
& (v1_funct_2 X1 X0 k7_numbers)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 \\
& X0 k7_numbers))))))\Rightarrow((v6_supinf_2 X1)\Leftrightarrow(\forall X2.(m1_subset_1 \\
& X2 X0)\Rightarrow(r1_xreal_0 k1_supinf_2 (k12_supinf_2 X1 X2))))
\end{aligned} \tag{16}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.((m1_subset_1 X0 k7_numbers)\wedge(m1_subset_1 \\
& X1 k7_numbers))\Rightarrow(k3_supinf_2 X0 X1 = k3_supinf_2 X1 X0)
\end{aligned} \tag{17}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(((\neg v1_xboole_0 X0)\wedge(v4_finsub_1 \\
& X0))\wedge((m1_subset_1 X1 X0)\wedge(m1_subset_1 X2 X0)))\Rightarrow(k1_finsub_1 \\
& X0 X1 X2 = k1_finsub_1 X0 X2 X1)
\end{aligned} \tag{18}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0)))\Rightarrow(((v2_finsub_1 X1)\wedge(v1_prob_1 X1 X0))\Rightarrow(v3_finsub_1 X1))
\end{aligned} \tag{19}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 \\
& (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1))
\end{aligned} \tag{20}$$

Assume the following.

$$\begin{aligned}
& \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\
& X0)))\Rightarrow(((v2_finsub_1 X1)\wedge(v1_prob_1 X1 X0))\Rightarrow(v1_finsub_1 X1))
\end{aligned} \tag{21}$$

Assume the following.

$$\begin{aligned}
& \forall X0.((v1_finsub_1 X0)\wedge(v3_finsub_1 X0))\Rightarrow(v4_finsub_1 X0)
\end{aligned} \tag{22}$$

Assume the following.

$$\forall X0.((v1_relat_1 X0) \wedge (v5_relat_1 X0 \ k7_numbers)) \Rightarrow ((v1_relat_1 X0) \wedge (v2_valued_0 X0)) \quad (23)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_relat_1 X2) \quad (24)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X1) \wedge ((v2_finsub_1 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 \\ & X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge ((v1_funct_2 X2 X1 \ k7_numbers) \wedge \\ & ((v10_valued_0 X2) \wedge ((v6_supinf_2 X2) \wedge ((v2_measure1 X2 X0 X1) \wedge \\ & (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 \ k7_numbers))))))) \Rightarrow \\ & (\forall X3. (m2_subset_1 X3 (k1_zfmisc_1 X0) X1) \Rightarrow (\forall X4. \\ & (m2_subset_1 X4 (k1_zfmisc_1 X0) X1) \Rightarrow ((r1_tarski X3 X4) \Rightarrow (r1_xxreal_0 \\ & (k12_supinf_2 X2 X3) (k12_supinf_2 X2 X4)))))) \end{aligned}$$