

t18_random_1

(TMZBJ3Vb3WncyNWWbyNqEF1BtYNNNoMCnyLs)

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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 $m1_random_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k3_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_numbers : \iota$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ 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 $r1_mesfunc6 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_membered : \iota \Rightarrow o$ be given. Let $k1_valued_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $v4_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_partfun1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_valued_0 : \iota \Rightarrow o$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v3_valued_0 : \iota \Rightarrow o$ be given. Let $v5_relat_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. (\neg v1_xboole_0 X0) \Rightarrow (\forall X1. ((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2. ((v1_funct_1 X2) \wedge (m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 k1_numbers)))) \Rightarrow (\forall X3. (\\ & (v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 (k2_zfmisc_1 X0 \\ & k1_numbers)))) \Rightarrow (\forall X4. (m2_subset_1 X4 (k1_zfmisc_1 X0 \\ & X1) \Rightarrow (((r1_mesfunc6 X0 X1 X2 X4) \wedge (r1_mesfunc6 X0 X1 X3 X4)) \Rightarrow (r1_mesfunc6 \\ & X0 X1 (k3_valued_1 X0 k1_numbers k1_numbers X2 X3) X4)))))) \\ & \hspace{15em} (1) \end{aligned}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. \forall X4. ((v3_membered \\ & X1) \wedge ((v3_membered X2) \wedge (((v1_funct_1 X3) \wedge (m1_subset_1 X3 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X1)))) \wedge ((v1_funct_1 X4) \wedge (m1_subset_1 X4 (k1_zfmisc_1 \\ & (k2_zfmisc_1 X0 X2)))))) \Rightarrow (k3_valued_1 X0 X1 X2 X3 X4 = k1_valued_1 \\ & X3 X4) \\ & \hspace{15em} (2) \end{aligned}$$

Assume the following.

$$\forall X0. \forall X1. v1_relat_1 (k2_zfmisc_1 X0 X1) \hspace{10em} (3)$$

Assume the following.

$$v3_membered k1_numbers \hspace{10em} (4)$$

Assume the following.

$$\neg v1_xboole_0 \ k1_numbers \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.(((v1_relat_1 \ X1)\wedge((v4_relat_1 \\ & X1 \ X0)\wedge((v1_funct_1 \ X1)\wedge((v1_partfun1 \ X1 \ X0)\wedge(v1_valued_0 \ X1))))))\wedge \\ & ((v1_relat_1 \ X2)\wedge((v4_relat_1 \ X2 \ X0)\wedge((v1_funct_1 \ X2)\wedge((v1_partfun1 \\ & X2 \ X0)\wedge(v1_valued_0 \ X2))))))\Rightarrow((v1_relat_1 \ (k1_valued_1 \ X1 \ X2))\wedge \\ & ((v1_funct_1 \ (k1_valued_1 \ X1 \ X2))\wedge(v1_partfun1 \ (k1_valued_1 \\ & X1 \ X2) \ X0))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.((\neg v1_xboole_0 \ X0)\wedge((\neg v1_xboole_0 \ X1)\wedge \\ & ((v1_prob_1 \ X1 \ X0)\wedge((v4_prob_1 \ X1 \ X0)\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ & (k1_zfmisc_1 \ X0))))))\Rightarrow(\forall X2.(m1_random_1 \ X2 \ X0 \ X1)\Rightarrow((\\ & v1_funct_1 \ X2)\wedge((v1_funct_2 \ X2 \ X0 \ k1_numbers)\wedge(m1_subset_1 \ X2 \\ & (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ k1_numbers)))))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.\forall X4.((v3_membered \\ & X1)\wedge((v3_membered \ X2)\wedge(((v1_funct_1 \ X3)\wedge(m1_subset_1 \ X3 \ (k1_zfmisc_1 \\ & (k2_zfmisc_1 \ X0 \ X1))))\wedge((v1_funct_1 \ X4)\wedge(m1_subset_1 \ X4 \ (k1_zfmisc_1 \\ & (k2_zfmisc_1 \ X0 \ X2))))))\Rightarrow((v1_funct_1 \ (k3_valued_1 \ X0 \ X1 \ X2 \ X3 \\ & X4))\wedge(m1_subset_1 \ (k3_valued_1 \ X0 \ X1 \ X2 \ X3 \ X4) \ (k1_zfmisc_1 \ (k2_zfmisc_1 \\ & X0 \ k1_numbers)))) \end{aligned} \quad (8)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 \ X0)\Rightarrow(\forall X1.((\neg v1_xboole_0 \ X1)\wedge \\ & ((v1_prob_1 \ X1 \ X0)\wedge((v4_prob_1 \ X1 \ X0)\wedge(m1_subset_1 \ X1 \ (k1_zfmisc_1 \\ & (k1_zfmisc_1 \ X0))))))\Rightarrow(\forall X2.((v1_funct_1 \ X2)\wedge((v1_funct_2 \\ & X2 \ X0 \ k1_numbers)\wedge(m1_subset_1 \ X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \\ & k1_numbers))))\Rightarrow((m1_random_1 \ X2 \ X0 \ X1)\Leftrightarrow(\exists X3.(m2_subset_1 \\ & X3 \ (k1_zfmisc_1 \ X0) \ X1)\wedge((X3 = X0)\wedge(r1_mesfunc6 \ X0 \ X1 \ X2 \ X3)))))) \end{aligned} \quad (9)$$

Assume the following.

$$\forall X0.((v1_relat_1 \ X0)\wedge(v3_valued_0 \ X0))\Rightarrow((v1_relat_1 \ X0)\wedge(v1_valued_0 \ X0)) \quad (10)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(\neg v1_xboole_0 \ X1)\Rightarrow(\forall X2.(m1_subset_1 \\ & X2 \ (k1_zfmisc_1 \ (k2_zfmisc_1 \ X0 \ X1)))\Rightarrow((v1_funct_2 \ X2 \ X0 \ X1)\Rightarrow(\\ & v1_partfun1 \ X2 \ X0))) \end{aligned} \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow((v4_relat_1 X2 X0)\wedge(v5_relat_1 X2 X1)) \quad (12)$$

Assume the following.

$$\forall X0.(v1_relat_1 X0)\Rightarrow(\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 X0))\Rightarrow(v1_relat_1 X1)) \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow((v1_partfun1 X2 X0)\Rightarrow(v1_funct_2 X2 X0 X1)) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(v3_membered X1)\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1)))\Rightarrow(v3_valued_0 X2)) \quad (15)$$

Theorem 1

$$\forall X0.(\neg v1_xboole_0 X0)\Rightarrow(\forall X1.((\neg v1_xboole_0 X1)\wedge((v1_prob_1 X1 X0)\wedge((v4_prob_1 X1 X0)\wedge(m1_subset_1 X1 (k1_zfmisc_1 (k1_zfmisc_1 X0))))))\Rightarrow(\forall X2.(m1_random_1 X2 X0 X1)\Rightarrow(\forall X3.(m1_random_1 X3 X0 X1)\Rightarrow(m1_random_1 (k3_valued_1 X0 k1_numbers k1_numbers X2 X3) X0 X1))))$$