

t42_turing_1
(TMFPaUKYiVn3urmKQjLWJEbsgSa7Xsw42ns)

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Let $l1_turing_1 : \iota \Rightarrow o$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k21_turing_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $u2_turing_1 : \iota \Rightarrow \iota$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $u5_turing_1 : \iota \Rightarrow \iota$ be given. Let $u4_turing_1 : \iota \Rightarrow \iota$ be given. Let $v1_finset_1 : \iota \Rightarrow o$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. \neg(X0 \in X1) \wedge (v1_xboole_0 X1) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X0 X1) \Rightarrow ((v1_xboole_0 X1) \vee (X0 \in X1)) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. (X0 \in X1) \Rightarrow (m1_subset_1 X0 X1) \quad (3)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (\neg v1_xboole_0 X1) \Rightarrow (\forall X2. (\neg v1_xboole_0 \\ & X2) \Rightarrow (\neg(X0 \in k2_zfmisc_1 X1 X2) \wedge (\forall X3. (m1_subset_1 X3 X1) \Rightarrow \\ & (\forall X4. (m1_subset_1 X4 X2) \Rightarrow (X0 \neq k4_tarski X3 X4)))))) \end{aligned} \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow (k6_domain_1 X0 X1 = k1_tarski X1) \quad (5)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. \forall X3. ((\neg v1_xboole_0 X0) \wedge \\ & ((\neg v1_xboole_0 X1) \wedge ((m1_subset_1 X2 X0) \wedge (m1_subset_1 X3 X1)))) \Rightarrow \\ & (k1_domain_1 X0 X1 X2 X3 = k4_tarski X2 X3) \end{aligned} \quad (6)$$

Assume the following.

$$\forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (\neg v1_xboole_0 X1)) \quad (7)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k1_tarSKI X0) \quad (8)$$

Assume the following.

$$\forall X0.(l1_turing_1 X0) \Rightarrow (m1_subset_1 (u5_turing_1 X0) (u2_turing_1 X0)) \quad (9)$$

Assume the following.

$$\forall X0.(l1_turing_1 X0) \Rightarrow (m1_subset_1 (u4_turing_1 X0) (u2_turing_1 X0)) \quad (10)$$

Assume the following.

$$\forall X0.(l1_turing_1 X0) \Rightarrow ((\neg v1_xboole_0 (u2_turing_1 X0)) \wedge (v1_finset_1 (u2_turing_1 X0))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((l1_turing_1 X0) \wedge (l1_turing_1 X1)) \Rightarrow ((\neg v1_xboole_0 (k21_turing_1 X0 X1)) \wedge (v1_finset_1 (k21_turing_1 X0 X1))) \quad (12)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(X2 = k2_xboole_0 X0 X1) \Leftrightarrow (\forall X3.(X3 \in X2) \Leftrightarrow ((X3 \in X0) \vee (X3 \in X1))) \quad (13)$$

Assume the following.

$$\forall X0.(l1_turing_1 X0) \Rightarrow (\forall X1.(l1_turing_1 X1) \Rightarrow (k21_turing_1 X0 X1 = k2_xboole_0 (k2_zfmisc_1 (u2_turing_1 X0) (k6_domain_1 (u2_turing_1 X1) (u4_turing_1 X1)))) (k2_zfmisc_1 (k6_domain_1 (u2_turing_1 X0) (u5_turing_1 X0)) (u2_turing_1 X1)))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.(X1 = k1_tarSKI X0) \Leftrightarrow (\forall X2.(X2 \in X1) \Leftrightarrow (X2 = X0)) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.(v1_xboole_0 X0) \Rightarrow (\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X1 X0))) \Rightarrow (v1_xboole_0 X2)) \quad (16)$$

Theorem 1

$$\forall X0.(l1_turing_1 X0) \Rightarrow (\forall X1.(l1_turing_1 X1) \Rightarrow (\forall X2.(m1_subset_1 X2 (k21_turing_1 X0 X1)) \Rightarrow (\exists X3.(m1_subset_1 X3 (u2_turing_1 X0)) \wedge (\exists X4.(m1_subset_1 X4 (u2_turing_1 X1)) \wedge (X2 = k1_domain_1 (u2_turing_1 X0) (u2_turing_1 X1) X3 X4))))))$$