

t4_flgang_3

(TMMhZkkRoN5GdEhYNzYpqU2vxW74gnP1DUj)

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Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k8_afinsq_1 : \iota \Rightarrow \iota$ be given. Let $v7_ordinal1 : \iota \Rightarrow o$ be given. Let $k1_flang_3 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k7_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k3_catalan2 : \iota \Rightarrow \iota$ be given. Let $k4_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_flang_1 : \iota \Rightarrow \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0.(v1_xreal_0 X0) \Rightarrow (\forall X1.(v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \quad (1)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (2)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X0 (k1_zfmisc_1 X1)) \Leftrightarrow (r1_tarski X0 X1) \quad (3)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow ((r1_xxreal_0 X2 X3) \Rightarrow (r1_tarski (k7_flang_1 X0 X1 X3) (k1_flang_3 X0 X1 X2)))))) \quad (4)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k8_afinsq_1 X0))) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow ((X1 \in k1_flang_3 X0 X2 X3) \Leftrightarrow (\exists X4.(v7_ordinal1 X4) \wedge ((r1_xxreal_0 X3 X4) \wedge (X1 \in k7_flang_1 X0 X2 X4)))))) \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (\forall X2. (v7_ordinal1 X2) \Rightarrow ((k7_flang_1 X0 X1 X2 = k1_xboole_0) \Leftrightarrow \\ ((\neg r1_xxreal_0 X2 k6_numbers) \wedge (X1 = k1_xboole_0)))) \end{aligned} \quad (7)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (k7_flang_1 X0 X1 k6_numbers = k4_flang_1 X0 (k2_flang_1 \\ X0)) \end{aligned} \quad (8)$$

Assume the following.

$$\forall X0. \forall X1. ((v1_xxreal_0 X0) \wedge (v1_xxreal_0 X1)) \Rightarrow (r1_xxreal_0 X0 X0) \quad (9)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (10)$$

Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k3_catalan2 X0)) \Rightarrow (k4_flang_1 X0 X1 = k1_tarski X1) \quad (11)$$

Assume the following.

$$\forall X0. k3_catalan2 X0 = k8_afinsq_1 X0 \quad (12)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (13)$$

Assume the following.

$$\forall X0. m1_subset_1 (k2_flang_1 X0) (k3_catalan2 X0) \quad (14)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Leftrightarrow (\forall X1. \neg X1 \in X0) \quad (15)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (v7_ordinal1 X0) \quad (16)$$

Assume the following.

$$\forall X0. ((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \quad (17)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow((v7_ordinal1\ X0)\wedge(\neg v3_xreal_0\ X0)) \quad (18)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xreal_0\ X0) \quad (19)$$

Assume the following.

$$\forall X0.(v7_ordinal1\ X0)\Rightarrow(v1_xreal_0\ X0) \quad (20)$$

Assume the following.

$$\forall X0.(v1_xboole_0\ X0)\Rightarrow(\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ X0))\Rightarrow(v1_xboole_0\ X1)) \quad (21)$$

Theorem 1

$$\forall X0.\forall X1.(m1_subset_1\ X1\ (k1_zfmisc_1\ (k8_afinsq_1\ X0)))\Rightarrow(\forall X2.(v7_ordinal1\ X2)\Rightarrow((k1_flang_3\ X0\ X1\ X2 = k1_xboole_0)\Leftrightarrow((\neg r1_xreal_0\ X2\ k6_numbers)\wedge(X1 = k1_xboole_0))))$$