

t30_flang_2 (TMSfsixG- GFETe99zn5NZLQvsCzE5URanMZL)

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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 $k2_flang_1 : \iota \Rightarrow \iota$ be given. Let $r1_xxreal_0 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k6_numbers : \iota$ be given. Let $k1_flang_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k4_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k7_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v1_xreal_0 : \iota \Rightarrow o$ be given. Let $v2_xxreal_0 : \iota \Rightarrow o$ be given. Let $v3_xxreal_0 : \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_catalan2 : \iota \Rightarrow \iota$ be given. Let $k8_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xxreal_0 : \iota \Rightarrow o$ be given. Let $v1_xcmplx_0 : \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ & X0))) \Rightarrow (\forall X2. (v7_ordinal1 X2) \Rightarrow ((k2_flang_1 X0 \in k7_flang_1 \\ & X0 X1 X2) \Leftrightarrow ((X2 = k6_numbers) \vee (k2_flang_1 X0 \in X1)))) \end{aligned} \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \neg (X0 \in X1) \wedge (v1_xboole_0 X1) \quad (2)$$

Assume the following.

$$\begin{aligned} & \forall X0. (v1_xreal_0 X0) \Rightarrow (\forall X1. (v1_xreal_0 X1) \Rightarrow ((r1_xxreal_0 \\ & X0 X1) \Rightarrow ((v1_xboole_0 X0) \vee ((v2_xxreal_0 X1) \vee (v3_xxreal_0 X0)))))) \end{aligned} \quad (3)$$

Assume the following.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (4)$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ & X0))) \Rightarrow (((k8_flang_1 X0 X1 = k4_flang_1 X0 (k2_flang_1 X0)) \Leftrightarrow ((X1 = \\ & k1_xboole_0) \vee (X1 = k4_flang_1 X0 (k2_flang_1 X0)))))) \end{aligned} \quad (5)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow ((k2_flang_1 X0 \in X1) \Rightarrow ((r1_xxreal_0 X2 k6_numbers) \vee (r1_tarski X1 (k7_flang_1 X0 X1 X2)))))) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski (k1_tarski X0) X1) \Leftrightarrow (X0 \in X1) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0))) \Rightarrow (k7_flang_1 X0 X1 k6_numbers = k4_flang_1 X0 (k2_flang_1 X0)) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (k1_flang_2 X0 X1 X2 X2 = k7_flang_1 X0 X1 X2)) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow ((k1_flang_2 X0 X1 X2 X3 = k1_xboole_0) \Leftrightarrow (\neg(r1_xxreal_0 X2 X3) \wedge (\neg(\neg r1_xxreal_0 X2 k6_numbers) \wedge (X1 = k1_xboole_0)))))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow (\forall X3.(v7_ordinal1 X3) \Rightarrow (\forall X4.(v7_ordinal1 X4) \Rightarrow (((r1_xxreal_0 X2 X3) \wedge (r1_xxreal_0 X3 X4)) \Rightarrow (r1_tarski (k7_flang_1 X0 X1 X3) (k1_flang_2 X0 X1 X2 X4)))))) \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.(\forall X2.(X2 \in X0) \Leftrightarrow (X2 \in X1)) \Rightarrow (X0 = X1) \quad (12)$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \quad (13)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k8_afinsq_1 X1))) \Rightarrow (\neg(X0 \in X2) \wedge ((X0 \neq k2_flang_1 X1) \wedge (k8_flang_1 X1 X2 = k4_flang_1 X1 (k2_flang_1 X1)))) \quad (14)$$

Assume the following.

$$\forall X0.\forall X1.((v1_xxreal_0 X0)\wedge(v1_xxreal_0 X1))\Rightarrow(r1_xxreal_0 X0 X0) \quad (15)$$

Assume the following.

$$\forall X0.\forall X1.r1_tarski X0 X0 \quad (16)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (17)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k3_catalan2 X0))\Rightarrow(k4_flang_1 X0 X1 = k1_tarski X1) \quad (18)$$

Assume the following.

$$\forall X0.k3_catalan2 X0 = k8_afinsq_1 X0 \quad (19)$$

Assume the following.

$$\exists X0.(v1_xboole_0 X0)\wedge((v1_xcmplx_0 X0)\wedge((v1_xxreal_0 X0)\wedge(v1_xreal_0 X0))) \quad (20)$$

Assume the following.

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

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (22)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 X0)))\Rightarrow(m1_subset_1 (k8_flang_1 X0 X1) (k1_zfmisc_1 (k3_catalan2 X0))) \quad (23)$$

Assume the following.

$$\forall X0.m1_subset_1 (k2_flang_1 X0) (k3_catalan2 X0) \quad (24)$$

Assume the following.

$$\forall X0.\forall X1.(r1_tarski X0 X1)\Leftrightarrow(\forall X2.(X2 \in X0)\Rightarrow(X2 \in X1)) \quad (25)$$

Assume the following.

$$\forall X0.(m1_subset_1 X0 k4_ordinal1)\Rightarrow(v7_ordinal1 X0) \quad (26)$$

Assume the following.

$$\forall X0.((v1_xxreal_0 X0) \wedge (v2_xxreal_0 X0)) \Rightarrow ((\neg v1_xboole_0 X0) \wedge ((v1_xxreal_0 X0) \wedge (\neg v3_xxreal_0 X0))) \quad (27)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow ((v7_ordinal1 X0) \wedge (\neg v3_xxreal_0 X0)) \quad (28)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xxreal_0 X0) \quad (29)$$

Assume the following.

$$\forall X0.(v7_ordinal1 X0) \Rightarrow (v1_xreal_0 X0) \quad (30)$$

Theorem 1

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (m1_subset_1 X2 (k1_zfmisc_1 \\ & (k8_afinsq_1 X1))) \Rightarrow (\forall X3. (v7_ordinal1 X3) \Rightarrow (\forall X4. \\ & (v7_ordinal1 X4) \Rightarrow (\neg(X0 \in X2) \wedge ((X0 \neq k2_flang_1 X1) \wedge ((\neg(r1_xxreal_0 \\ & X3 k6_numbers) \wedge (r1_xxreal_0 X4 k6_numbers)) \wedge (k1_flang_2 X1 X2 \\ & X3 X4 = k4_flang_1 X1 (k2_flang_1 X1))))))) \end{aligned}$$