

t15_flang_3

(TMWsv9tEwycxqTTxASR32c5DYC9F4hxKG9M)

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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 $k4_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_flang_1 : \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $k1_xboole_0 : \iota$ 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 $k3_catalan2 : \iota \Rightarrow \iota$ be given. Let $k8_flang_1 : \iota \Rightarrow \iota \Rightarrow \iota$ 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.

$$\forall X0. (v1_xboole_0 X0) \Rightarrow (X0 = k1_xboole_0) \quad (3)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow ((k8_flang_1 X0 X1 = k4_flang_1 X0 (k2_flang_1 X0)) \Leftrightarrow ((X1 = \\ k1_xboole_0) \vee (X1 = k4_flang_1 X0 (k2_flang_1 X0)))) \end{aligned} \quad (4)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k3_catalan2 \\ X0))) \Rightarrow (k7_flang_1 X0 X1 k6_numbers = k4_flang_1 X0 (k2_flang_1 \\ X0)) \end{aligned} \quad (5)$$

Assume the following.

$$\begin{aligned} \forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0))) \Rightarrow (\forall X2. (v7_ordinal1 X2) \Rightarrow ((k1_flang_3 X0 X1 X2 = k8_flang_1 \\ X0 X1) \Leftrightarrow ((k2_flang_1 X0 \in X1) \vee (X2 = k6_numbers)))) \end{aligned} \quad (6)$$

Assume the following.

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow ((k2_flang_1 X0 \in k1_flang_3 \\ X0 X1 X2) \Leftrightarrow ((X2 = k6_numbers) \vee (k2_flang_1 X0 \in X1)))) \end{aligned} \quad (7)$$

Assume the following.

$$k6_numbers = k1_xboole_0 \quad (8)$$

Assume the following.

$$\forall X0.k3_catalan2 X0 = k8_afinsq_1 X0 \quad (9)$$

Assume the following.

$$\forall X0.\exists X1.(m1_subset_1 X1 (k1_zfmisc_1 X0)) \wedge (v1_xboole_0 X1) \quad (10)$$

Assume the following.

$$v1_xboole_0 k1_xboole_0 \quad (11)$$

Assume the following.

$$\forall X0.(v1_xboole_0 X0) \Rightarrow (v7_ordinal1 X0) \quad (12)$$

Theorem 1

$$\begin{aligned} \forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k8_afinsq_1 \\ X0))) \Rightarrow (\forall X2.(v7_ordinal1 X2) \Rightarrow ((k1_flang_3 X0 X1 X2 = k4_flang_1 \\ X0 (k2_flang_1 X0)) \Leftrightarrow ((X1 = k4_flang_1 X0 (k2_flang_1 X0)) \vee ((X2 = \\ k6_numbers) \wedge (X1 = k1_xboole_0)))))) \end{aligned}$$