

l14_qmax_1

(TMUc8HFz3UQ5KpejiBzMZgNev7Qjwh5sq8m)

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Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k6_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k5_numbers : \iota$ be given. Let $k1_zfmisc_1 : \iota \Rightarrow \iota$ be given. Let $k12_prob_1 : \iota$ be given. Let $k1_numbers : \iota$ be given. Let $k1_domain_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k6_numbers : \iota$ be given. Let $c3_qmax_1 : \iota$ be given. Let $k1_qmax_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $v1_relat_1 : \iota \Rightarrow o$ be given. Let $k1_tarski : \iota \Rightarrow \iota$ be given. Let $k4_tarski : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $m1_subset_1 : \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k4_ordinal1 : \iota$ be given. Let $v1_xboole_0 : \iota \Rightarrow o$ be given. Let $v3_ordinal1 : \iota \Rightarrow o$ 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 $m2_prob_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $v1_funct_1 : \iota \Rightarrow o$ be given. Let $c2_qmax_1 : \iota$ be given. Let $v1_funct_2 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. \forall X2. (v1_relat_1 X2) \Rightarrow ((X2 = k1_tarski \\ & (k4_tarski X0 X1)) \Rightarrow ((k9_xtuple_0 X2 = k1_tarski X0) \wedge (k10_xtuple_0 \\ & X2 = k1_tarski X1))) \end{aligned} \tag{1}$$

Assume the following.

$$m1_subset_1 k1_xboole_0 k4_ordinal1 \tag{2}$$

Assume the following.

$$k6_numbers = k1_xboole_0 \tag{3}$$

Assume the following.

$$\begin{aligned} & \forall X0. \forall X1. ((\neg v1_xboole_0 X0) \wedge (m1_subset_1 X1 X0)) \Rightarrow \\ & (k6_domain_1 X0 X1 = k1_tarski X1) \end{aligned} \tag{4}$$

Assume the following.

$$k5_numbers = k4_ordinal1 \tag{5}$$

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.

$$(\neg v1_xboole_0 k4_ordinal1)\wedge(v3_ordinal1 k4_ordinal1) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.v1_relat_1 (k1_tarSKI (k4_tarSKI X0 X1)) \quad (9)$$

Assume the following.

$$\forall X0.\neg v1_xboole_0 (k1_zfmisc_1 X0) \quad (10)$$

Assume the following.

$$\neg v1_xboole_0 k1_numbers \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.((\neg v1_xboole_0 X0)\wedge(\neg v1_xboole_0 X1))\Rightarrow (\neg v1_xboole_0 (k2_zfmisc_1 X0 X1)) \quad (12)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.\forall X2.\forall X3.((\neg v1_xboole_0 X0)\wedge \\ & ((\neg v1_xboole_0 X1)\wedge((m1_subset_1 X2 X0)\wedge(m1_subset_1 X3 X1))))\Rightarrow \\ & (m1_subset_1 (k1_domain_1 X0 X1 X2 X3) (k2_zfmisc_1 X0 X1)) \end{aligned} \quad (13)$$

Assume the following.

$$\begin{aligned} & (\neg v1_xboole_0 k12_prob_1)\wedge((v1_prob_1 k12_prob_1 k1_numbers)\wedge \\ & ((v4_prob_1 k12_prob_1 k1_numbers)\wedge(m1_subset_1 k12_prob_1 \\ & (k1_zfmisc_1 (k1_zfmisc_1 k1_numbers)))))) \end{aligned} \quad (14)$$

Assume the following.

$$m2_prob_1 c3_qmax_1 k1_numbers k12_prob_1 \quad (15)$$

Assume the following.

$$\begin{aligned} & (v1_funct_1 c2_qmax_1)\wedge((v1_funct_2 c2_qmax_1 k12_prob_1 \\ & k1_numbers)\wedge(m1_subset_1 c2_qmax_1 (k1_zfmisc_1 (k2_zfmisc_1 \\ & k12_prob_1 k1_numbers)))) \end{aligned} \quad (16)$$

Assume the following.

$$c3_qmax_1 = c2_qmax_1 \quad (17)$$

Assume the following.

$$\begin{aligned} & \forall X0.(\neg v1_xboole_0 X0) \Rightarrow (\forall X1.((\neg v1_xboole_0 X1) \wedge \\ & ((v1_prob_1 X1 X0) \wedge ((v4_prob_1 X1 X0) \wedge (m1_subset_1 X1 (k1_zfmisc_1 \\ & (k1_zfmisc_1 X0)))))) \Rightarrow (\forall X2.(X2 = k1_qmax_1 X0 X1) \Leftrightarrow (\forall X3. \\ & (X3 \in X2) \Leftrightarrow (m2_prob_1 X3 X0 X1)))) \end{aligned} \quad (18)$$

Assume the following.

$$\begin{aligned} & \forall X0.\forall X1.(v1_xboole_0 X0) \Rightarrow (\forall X2.(m1_subset_1 \\ & X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow (v1_xboole_0 X2)) \end{aligned} \quad (19)$$

Theorem 1

$$\begin{aligned} & (k10_xtuple_0 (k6_domain_1 (k2_zfmisc_1 (k2_zfmisc_1 k5_numbers \\ & k5_numbers) (k1_zfmisc_1 (k2_zfmisc_1 k12_prob_1 k1_numbers))) \\ & (k1_domain_1 (k2_zfmisc_1 k5_numbers k5_numbers) (k1_zfmisc_1 \\ & (k2_zfmisc_1 k12_prob_1 k1_numbers)) (k1_domain_1 k5_numbers \\ & k5_numbers k6_numbers k6_numbers) c3_qmax_1)) = k6_domain_1 \\ & (k1_zfmisc_1 (k2_zfmisc_1 k12_prob_1 k1_numbers)) c3_qmax_1) \wedge \\ & (c3_qmax_1 \in k1_qmax_1 k1_numbers k12_prob_1) \end{aligned}$$