

t53_mmlquery
(TMQEKDVM5N2mirohXGJmiQL5f2b6X8zwXGn)

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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 $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_relset_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow o$ be given. Let $k19_mmlquery : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k20_mmlquery : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k18_mmlquery : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k3_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k2_xboole_0 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $r1_tarski : \iota \Rightarrow \iota \Rightarrow o$ be given. Assume the following.

$$\forall X0. \forall X1. (m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \Rightarrow (k19_mmlquery X0 X1 (k18_mmlquery X0 X1) = k1_xboole_0) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3_xboole_0 X0 (k2_xboole_0 X1 X2) = k2_xboole_0 (k3_xboole_0 X0 X1) (k3_xboole_0 X0 X2) \quad (2)$$

Assume the following.

$$\forall X0. k2_xboole_0 X0 k1_xboole_0 = X0 \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. r1_tarski (k3_xboole_0 X0 X1) X0 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X1))) \Rightarrow ((r1_relset_1 X0 X1 X2 X3) \Leftrightarrow (r1_tarski X2 X3)) \quad (5)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. ((m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \wedge (m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))) \Rightarrow (k20_mmlquery X0 X1 X2 = k2_xboole_0 X1 X2) \quad (6)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))))\Rightarrow(k19_mmlquery X0 X1 X2 = k3_xboole_0 X1 X2) \quad (7)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))))\Rightarrow(m1_subset_1 (k20_mmlquery X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \quad (8)$$

Assume the following.

$$\forall X0.\forall X1.\forall X2.((m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\wedge(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))))\Rightarrow(m1_subset_1 (k19_mmlquery X0 X1 X2) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \quad (9)$$

Assume the following.

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\Rightarrow(m1_subset_1 (k18_mmlquery X0 X1) (k1_zfmisc_1 (k2_zfmisc_1 X0 X0))) \quad (10)$$

Assume the following.

$$\forall X0.\forall X1.k3_xboole_0 X0 X1 = k3_xboole_0 X1 X0 \quad (11)$$

Assume the following.

$$\forall X0.\forall X1.k2_xboole_0 X0 X1 = k2_xboole_0 X1 X0 \quad (12)$$

Theorem 1

$$\forall X0.\forall X1.(m1_subset_1 X1 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\Rightarrow(\forall X2.(m1_subset_1 X2 (k1_zfmisc_1 (k2_zfmisc_1 X0 X0)))\Rightarrow(r1_relset_1 X0 X0 (k19_mmlquery X0 (k20_mmlquery X0 X1 X2) (k18_mmlquery X0 X1)) X2))$$