

t52_mcart_1

(TMVwRYzqWP9mtwJFZiPSKZXcrfTgZZjm77i)

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Let $k4_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k1_xboole_0 : \iota$ be given. Let $k2_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota$ be given. Let $k9_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k10_xtuple_0 : \iota \Rightarrow \iota$ be given. Let $k3_zfmisc_1 : \iota \Rightarrow \iota \Rightarrow \iota \Rightarrow \iota$ be given. Assume the following.

$$\forall X0. \forall X1. (k2_zfmisc_1 X0 X1 = k1_xboole_0) \Leftrightarrow ((X0 = k1_xboole_0) \vee (X1 = k1_xboole_0)) \quad (1)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. ((X0 \neq k1_xboole_0) \wedge ((X1 \neq k1_xboole_0) \wedge ((X2 \neq k1_xboole_0) \wedge (X3 \neq k1_xboole_0)))) \Leftrightarrow (k4_zfmisc_1 X0 X1 X2 X3 \neq k1_xboole_0) \quad (2)$$

Assume the following.

$$\forall X0. \forall X1. \neg (X0 \neq k1_xboole_0) \wedge ((X1 \neq k1_xboole_0) \wedge (\neg (k9_xtuple_0 (k2_zfmisc_1 X0 X1) = X0) \wedge (k10_xtuple_0 (k2_zfmisc_1 X0 X1) = X1))) \quad (3)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. \forall X3. k4_zfmisc_1 X0 X1 X2 X3 = k2_zfmisc_1 (k3_zfmisc_1 X0 X1 X2) X3 \quad (4)$$

Assume the following.

$$\forall X0. \forall X1. \forall X2. k3_zfmisc_1 X0 X1 X2 = k2_zfmisc_1 (k2_zfmisc_1 X0 X1) X2 \quad (5)$$

Theorem 1

$$\forall X0. \forall X1. \forall X2. \forall X3. \forall X4. \forall X5. \forall X6. \forall X7. (k4_zfmisc_1 X0 X1 X2 X3 = k4_zfmisc_1 X4 X5 X6 X7) \Rightarrow ((X0 = k1_xboole_0) \vee ((X1 = k1_xboole_0) \vee ((X2 = k1_xboole_0) \vee ((X3 = k1_xboole_0) \vee ((X0 = X4) \wedge ((X1 = X5) \wedge ((X2 = X6) \wedge (X3 = X7)))))))) \quad (6)$$